Economic Affairs / A Monthly Analysis

A special supplement to CHALLENGE

January 1, 1961

BEST WISHES FOR A PROSPEROUS NEW YEAR may come true, but it's going to take some time before they do. The lag in business is still with us, and likely to stay with us until next summer. One way to examine it is to focus on two areas of investment: inventories and capital spending.

Two factors can be detected in the behavior of business inventories. One is a reduction in their size to bring them into line with expected sales. Another is a longer-term reduction in the ratio of inventories to sales that businessmen like to maintain. Businessmen now expect stable prices. They see excess capacity—which means quick deliveries are possible—and technological changes have given them better ways of accounting for and shifting their stock of goods.

The first of these factors is temporary. When we come out of the downswing of the business cycle, inventories will be built up with the rise in sales. This will create the income needed to buy the goods. The second factor, however, slows down this development. It also inhibits business desire to add to productive capacity.

Capital spending takes place when demand for goods is greater than industry's ability to supply them. There's much excess capacity present, so that even a strong boost in sales could be satisfied with present equipment.

Less capital spending seems to be in the cards. The recent McGraw-Hill survey of capital spending plans projects a 3% decline for 1961. Experience tells us that businessmen tend to overestimate their spending plans at this stage of the cycle, so that the decline is likely to be greater than 3%.

Low business spending for inventory and equipment lies at the heart of any business downturn, including this one. This leads to unemployment and lower profits. This, in turn, means lower incomes and a lessened ability to buy the goods and services of American industry. Unemployment is now about 7%, a postwar high.

In part, the problem is self-correcting. Competition brings down the prices of slow-moving goods, encouraging consumers to buy. Although it's not fully reflected in the price indexes, price reductions are becoming more widespread. Sellers are also putting less emphasis on expensive models, are tending to concentrate on "compact" and utility lines.

If the readjustment in inventories can be completed within the next few months, the stage may be set for a recovery before the impact of lower capital spending is felt. It's often forgotten that the downtrend in inventories has been under way for a year now, so that part of the job has been completed.

Government will be called upon to help cushion the painful transition, keep it from getting out of hand. Like many of us, the new Administration will begin the new year with a headache.

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SPECIAL CORRESPONDENCE—Among the many problems that the new Administration faces, the Kennedy people have focused their attention on two that are considered the most pressing: the dollar crisis and the recession on the domestic front.

Most of the suggested antirecession measures would further aggravate the international payments difficulties of the United States. A cut in interest rates to stimulate borrowing and investment, or sizable government pump-priming programs at the cost of budget deficits, would further weaken the dollar.

On the other hand, measures that would normally help the dollar, such as prohibiting the movement of gold out of the country, curbing overseas investments or dollar purchases abroad, or cutting down on our overseas economic and military commitments—all these would do irreparable harm to American prestige abroad and not help with the recession at home.

Many European economists feel that a devaluation of the dollar is inevitable—i.e., $35 an ounce for gold is unrealistic in relation to the value of the current dollar.

But most U.S. experts agree that this is a desperation move only. Prestige is again a factor. The domestic "psychological" effects could trigger another round of inflation at a time when unemployment is approaching 7% of the labor force. Moreover, the feeling is that in a short time most currencies of the world would feel the pressure of the new American price on gold, with the only real beneficiaries being South Africa, a major gold producer, and the Soviet Union, a gold hoarder.

Not all of the problems faced by the new Kennedy Administration have direct, international overtones. A study on the regulatory commissions is being prepared by James Landis, former Dean of the Harvard Law School. Among his recommendations will be a call for a federal transportation commission to replace the ICC, FAA and the Maritime Administration.

These recommendations, which include tighter White House control over the commissions, will run into the same type of opposition confronting the Symington proposals for reorganization of the Defense Department. Transportation interests are putting the pressure on Congress to resist further centralization and controls.

The setting up of a "third force" to represent the public in major labor-management disputes is one of the priority items with some Kennedy advisers. Such an agency would be made up of representatives from labor, management and the government, with only research and advisory powers.

Work-rules disputes continue to plague the steel and railroad industries. In both instances contract agreements left open, for further study, the work-rules problem, which is a very live issue in the future of labor-management relations, the march of automation and the prospects for improved productivity.

The 20-nation Organization for Economic Cooperation and Development, with the U.S.A. participating as a full partner, will probably not encounter much opposition in the Senate. High tariff proponents will raise a hue and cry about the dangers of coordinating economic policy with other countries. But the current troubles of the dollar have convinced most of Washington that the U.S.A. can no longer go it alone.

Russia continues to step up its trade offensive. Oil and machine tools have become her lead items, with Cuban sugar running a close second, at prices that West Europe cannot turn down. She is now on a buying spree in Japan. In the meantime, Red China is maneuvering to become the principal buyer and seller in Southeast Asia.

Challenge

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Editorial

THE PRICE OF PROGRESS

UNEMPLOYMENT is in the news again, but it never should have been out of the news during the past two years. I dare say that unemployment will remain in the news for a good many years to come, or for as long as the economy remains free of forced draft conditions. Put this way, the alternatives facing us are unattractive; for obviously we neither want an unemployment rate that refuses to stay below the five per cent mark, nor do we want to adopt the emergency-like measures urged by some to alleviate a situation which is not of emergency proportions.

Since all discussions of unemployment usually revolve around current statistics, a brief review of the figures would be in order. At a seasonally adjusted rate of 6.3 per cent of the labor force, the four-million-plus persons unemployed in November, 1960, represented the greatest number of jobless for any November since 1940. Projections of what is in store for the coming months are not encouraging. A Labor Department spokesman has already announced that 5.2 million people will be unemployed by January, 1961. There is good reason to believe that this is a minimum figure, which opens up the possibility that more than seven per cent of the labor force may be unemployed at the start of the new year—a postwar record.

A statistical measure of unemployment demands a statistical analysis of who the unemployed are. There once was a time when we could accept 1.2 million unemployed as a normal circumstance. The free market and freedom of movement had, and still have, a frictional effect. This frictional unemployment, resulting from people being between jobs for one voluntary reason or another, shows up in the unemployment statistics. Naturally, as the labor force grows, so will the total number of people out of work for normal or frictional reasons. This has the effect of inflating the unemployment statistics; so that any attempt to analyze where the real trouble spots are must take into account the 1.7 million currently unemployed who are not really an economic problem.

A truly serious problem rises with the more than two million unemployed who are out of work because of structural changes in the economy, people who are hit by persistent slowdowns in certain industries or caught in areas where pockets of unemployment remain substantial even in the best of economic times. Thus, between the frictional and chronic unemployment, we have about 3.7 million people out of work before we even start talking about good or bad business conditions. In times of business recession, and we apparently are in such period, the ranks of the unemployed will be swelled by those caught in the cyclical downswing.

A relatively new development in recent recessions has been the failure of all those out of work for cyclical reasons to be rehired with the return to normalcy of business conditions. If this pattern persists, by the end of 1961 there will be about 2.5 million people who will not be able to find jobs for nonfrictional or noncyclical reasons. And this will happen in spite of overall progress and over-all prosperity.

No one is happy that these 2.5 million wage earners must bear the brunt of changes taking place within the economic structure, changes which are otherwise salubrious. No one applauds the fact that because progress brings about change, these people will have to be left behind. But this is not the first time in our economic history that the good of the majority has victimized the minority.

Industrialization destroyed the hegemony of an agricultural way of life. The disruptions this caused are still with us and eventually will displace 50 per cent of our remaining farm population. The coming of the automobile wiped out the blacksmiths. Automation is shaking the structure of employment in our basic and mass production industries. In the long run, these changes were and will be for the general good. But they have had and will have disastrous consequences for some.

. . . and what to do about it

There is no economic system which can guarantee productive employment to all. The consequences of change are always disruptive to a certain degree. The uniqueness of the American problem is that the stastistics are realistically drawn and not hidden for political purpose. Moreover, our preoccupation with a consumer-oriented economy makes it particularly burdensome to specify that for reasons beyond our control 2.5 million people are unable to participate, as consumers, in the general bonanza.

I am not at all certain that unemployment resulting from factors described above and which may be traced to the workings of a free economy is a problem which should be left entirely to the federal government to study and eventually solve. That it requires study and begs for a solution is undeniable. I should like to suggest that a free people ought to be willing to see the study and solution of this problem come out of the efforts of our free enterprise community at a cost which should be a part of the cost of doing business. *The public will no doubt pay for this cost.* But in the end the majority will have rescued the minority with a minimum recourse to government.

If this seems like a bizarre solution, think of how much more bizarre it would be to insist that government do the job and at the same time complain about the growing size and influence of bureaucracy.—H. B.

LETTERS TO THE EDITOR

Challenge invites your comments. Address letters to CHALLENGE, *475 Fifth Avenue, New York 17, N. Y.*

JOBS ABROAD

• Dr. J. M. Naimark's letter in your October issue advocates sending more U.S. technicians to underdeveloped countries. Have you noticed how people want to be let alone, refuse to learn, do not want to be educated and prefer to be among the like-minded? I, for one, fail to see a world society hungering for "engineers, public health experts, agriculturists," but rather view these well-educated specialists as hungering for a clientele to pay them what they think they deserve.

CLAIRE J. LANDAU

New York, N. Y.

LOSS THROUGH STRIKES

• It was heartening to read in Prof. Ornati's article, "Fewer Strikes, Smaller Wage Hikes" [November, 1960], that he foresaw a decline in the use of the strike weapon. Far too often strikes are called for no good reason. The final settlement in many cases is about the same is it would have been if the union had accepted management's best prestrike offer. Thus, frequently labor loses through a strike because wages are foregone during the period that work ceases, and wage increases—if any—above the prestrike offer, cannot make up for the loss for many years.

R. M. WATERBURY

Providence, R. I.

ILLEGITIMATE EXPENSES

• In "The Invisible Hand of Tax Exemption" [November, 1960], Norman B. Ture points to the flagrant abuses of the section of the Internal Revenue Code which allows businesses to deduct legitimate business expenses from their taxable income. Mr. Ture states that these abuses stem from the difficulty the Internal Revenue Department has in interpreting what is an "ordinary" or "necessary" business expense.

I wonder if it is really that difficult. A few weeks ago, a friend of mine from London came to spend a few days with me in New York. During her stay she called on one of her father's business friends (a colleague, *not* a customer). He promptly sent her to dinner and the theater with his secretary. They ate at an expensive restaurant and then went to a show—after paying a "scalper's" fee of $20 apiece for the tickets. The whole evening, of course, was charged to the company's expense account.

Is it really so difficult for the Internal Revenue Department to figure out that such a "business expense" is not (or should not be) "ordinary" and certainly is not in the least "necessary" to the business?

BARBARA ROGERS

New York, N. Y.

• Tax exemptions, as Norman B. Ture clearly shows in your November issue, are making it possible for us to waste our resources on an impressive scale. What was missing from his article were specific proposals on how to reform our tax laws.

W. L. NORTON

New Orleans, La.

PLEA FOR SIMPLICITY

• Prof. Hollander has put his finger on a serious weakness in American marketing methods in "The Deluxe Economy Model" [November, 1960]. More and more, it is becoming impossible to buy a simple, cheap article as manufacturers upgrade them into luxury items. The fantastic American automobile is only the worst example of this trend. Are compact cars economy models? I say no.

C. P. LARABEE

Dallas, Texas

THE CHINESE PUZZLE

• I wish to compliment you on the editorial in your November issue. I find your "On the Domestic Front" quite complete regarding what is to be considered in the years ahead.

However, in ". . . and the foreign front" (concerning the problem of Communist China) two points are missing. These are: (1) possible theoretical exchange of views by the two opposing world ideologies in the United Nations because of pressure by the smaller nations who find themselves being whipsawed and thus kept in subordination by the leading opposing powers; and (2) if China had been a member when Khrushchev was at the U.N., might not the Communists have been successful in destroying the U.N.?

Until international order can be assured by willingness to discuss differences between goals of nations and the desire to resolve differences by force of arms disappears, there will be danger in going all out in accepting Communist nations into the U.N. It must be remembered that the Communist ideology has the power that it holds today over some nations because of success in the use of force rather than the use of reason.

GERALD BARRADAS

Lafayette, Calif.

EDITORIAL "I"

• November, 1960, issue, lead editorial, line 5—"I," line 13—"me." Is this a new trend—getting away from the cowardly editorial "we"? I'm for it. I don't like opinion makers who hide.

I'm still trying to make up my mind whether I like the new size of CHALLENGE. It might make a better impression sitting on a desk, but the pocket-carrying size was more practical. However, don't get in a sweat about it, I'd read it even though printed on wrapping paper.

ARVO WAIN

Three Oaks, Mich.

CONFERENCE FARE

• Copies of CHALLENGE were distributed to the business teachers in attendance at our first conference in California Polytechnic College at San Luis Obispo, California.

Most people were quite impressed with your magazine, and it added to the success of the conference.

AL GIORDANO, PRESIDENT
Central Coast Section
California Business Education Assoc.

CALL TO ACTION

• Has anyone counted how many studies of our need for improved education have been produced in the last five years? I note that CHALLENGE published two articles in two months—October and November of 1960—calling for better education. I do not criticize this; indeed, I applaud it. But what I do ask is when Americans are going to stop talking about the need for improved education and set to work improving it.

JOAN CUDLIPP

San Francisco, Calif.

CORRECTION

• In our last issue we mistakenly identified Kenneth E. Boulding as Professor of Economics at the University of Notre Dame, instead of the University of Michigan. Our apologies to Mr. Boulding.—Ed.

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IS THE GAME WORTH THE CANDLE?

by KENYON E. POOLE

■ ENTICINGLY ILLUSTRATED advertisements, and even entire Sunday supplements, have for a number of years been extolling the virtues of certain states and municipalities for new industrial enterprises. Prominently displayed among these advantages are direct financial aid and offers of tax exemptions. These rave notices are the work of the regional industrial promoter. But along with this enthusiasm runs an equally vigorous but not so generally noticed sentiment against the use of subsidies and tax advantages to encourage industry to move out of one area into another.

Many businessmen and public figures, as well as experts in the theory and practice of business location, are adamant against the use of "artificial" attempts to encourage the relocation of industrial enterprise. There is a sharply competitive aspect of the matter that, on the face of it, would appear to run contrary to the principle of balanced growth for the country as a whole or, some would say, even fair play.

Although many other devices are being used to entice industry, tax advantages and financial subsidies are particularly deplored. Not only is it very difficult, indeed, to prove that tax concessions and offers of reduced rents for industrial properties, or other direct subsidies, achieve their intended goal; but even if this can be shown, there are large potential social costs involved.

Where does the truth lie? Are some of the agricultural states of the South wasting resources in striving to attract industry through tax concessions? Is it a mistake for states in "declining" areas to try to restrain migrating industry by tax subsidies? Or, rather, are states like New Jersey and Indiana, for example, right in refusing to mount the bandwagon?

First, let us examine how tax concessions and subsidies fit into the over-all picture of state and local inducements to private industry to settle within their borders (or for local industry to expand plants). Brochures issued by development agencies naturally put great weight on special advantages of location, raw materials, nearness to markets, transport facilities and the like. In addition, attention is called to an extensive list of benefits which state and local governments can offer to new firms.

These incentives include assistance in market research; a continuous flow of business information provided by state and local chambers of commerce; subsidies in the form of reduced interest rates on loans; concessions in the purchase price or rental of land and industrial buildings; and, most important of all in the public imagination, exemption from taxes—particularly the local property tax—for a period typically running from five to 10 years.

Interest and debate

It is the tax inducement which has excited the most interest, as well as much heated debate. One reason is, of course, that the property taxpayer has borne an increasingly heavy burden in recent years. Local expenditures, particularly for schools and other facilities needed by an expanding population, have skyrocketed.

Local taxes have increased greatly since World War II, and the taxpayer does not want industrial property kept off the tax rolls, even for a few years, unless very clear economic benefits follow. Indeed, he wants to see quick results in the form of increased sales and payrolls, property valuations and other tax bases.

He also wants to know that industrial immigration does not so increase public expenditures that all, or more than all, of the automatic addition to tax revenues will be eaten up in higher budgets. In short, a very articulate "show me" sentiment is abroad to counter the often excessive exuberance of the industrial promoters.

Tax inducements to industry have a history that is longer than that of the Republic itself. Whenever the property tax is the major source of local revenues, an incentive exists to use temporary tax exemptions to attract new industry. It is hoped that new industry will stimulate the economy and, by pushing up property values, recoup the tax revenues foregone, and more to boot.

The device has by no means been widely used throughout all the states. Up to the Great Depression, it was found in less than one-third of them, and this situation remained virtually unchanged until after World War II. However, during and after the Thirties an increasingly large number of localities within these states began to take advantage of state-enabling legislation to grant exemptions.

Moreover, the widely heralded success of the aggressive Puerto Rican program of industrial development—which has included important tax concessions—has led many underdeveloped areas within the continental United States to look yearningly at the potentialities that might be opened up through industrial immigration. This represents a marked change in the attitude of many states and localities which in the past often

regarded industrial immigration as a nuisance that placed additional claims on public expenditures.

Just where do the states, as distinct from the municipalities, fit into these programs? The role of the states on the tax inducement side of industrial development programs has been largely restricted to the passage of enabling legislation. Aside from this all-important permissive legislation for the localities, the states are somewhat hampered in giving direct tax aid to business.

The states' major sources of tax revenue are corporate and personal income taxes, and sales and excise taxes. These do not lend themselves easily to special tax concessions. However, certain states have done something along these lines. For example, one state has enacted a sales tax exemption for the purchase of equipment by new industry. Louisiana has provided for state approval of a 10-year exemption for new plants, in addition to the five-year exemption at the option of the localities.

It is understandable that the municipalities have usually been the active agent in property tax exemption. This is their tax. In 1959, for example, they collected $14.4 billion out of a total of $15 billion in property taxes, or 96 per cent.

Forms of assistance

Much of the effort of the states has gone into the industrial development corporations themselves, together with the granting of certain kinds of direct subsidies. A recent study made by the Alaska Legislative Council Staff showed that only Texas and California have no state development agency. Yet many of the states which do have such agencies nevertheless do not favor tax exemption to new industry.

Several provide other forms of assistance, however. Thirteen states give direct financial assistance to new industries; but it is noteworthy that the same number (composed slightly differently) give such aid to old industry as well. State subsidies usually take the form of favorable interest terms on borrowing for new plant and equipment, flotation of state or state-guaranteed securities to provide facilities at reduced rentals, and other forms of money grants. A more novel, and perhaps more desperate, device used by some states faced with a shortage of skilled labor is to pay the difference between the wage rate actually paid by the firm and the relatively low productivity of the worker.

Why do the states set so much store on the activities of their industrial development corporations? And why has so much publicity been given to this aspect of economic life in recent years? Although the answer is not difficult, it does reflect the highly complex and dynamic background of a modern industrial society; and it also reflects the natural tendency of human beings to overestimate the possibilities of making up for natural deficiencies by legislative action.

The states vary enormously in their endowments of raw materials, labor force, quality of labor, markets, and so on. Moreover, there are constant and massive changes occurring in the distribution of markets and the labor force, as well as in the exploitation of natural resources. This process continually changes the relative economic positions of the various states and regions. These factors put pressure on the states to do all they can to maintain and improve their economies.

On top of all this, 40 years of the farm problem have made agricultural states, particularly in the South, eager to find a place for workers no longer needed on the farms. It is no good if they all migrate to the industrial North, depriving Southern states of potential workers and consumers of home-produced goods.

Entrepreneurial spirit

Thus, it often seems highly desirable for the agricultural states to kill two birds with one stone. They hope to solve the farm problem, and emigration from the farms, by developing resources which ought not to lie idle while there are idle men. They also intend to keep farm emigration within the state by encouraging new industry through tax and other incentives. It is much easier to visualize the problem in this form than to calculate the precise advantages and costs of such a program. The entrepreneurial spirit moves ahead, counting often rather blindly on sufficient success to justify the effort.

The spreading popularity of development corporations creates a bandwagon effect that ought not to be ignored. Enormous publicity has been given to their alleged successes. The amounts involved in simply running the corporation itself are sometimes large. In 1958 Puerto Rico appropriated about $5 million for operational expenses. This was

nearly 10 times the amount appropriated by its runner-up, New York; but Puerto Rico's deep and often-expressed satisfaction at the results is a constant encouragement to greater efforts elsewhere.

It is easy to see that unless there is a way to estimate fairly accurately the direct and indirect benefits, as well as the direct and indirect costs, of an industrial development program (including tax concessions), there may be a tendency for the movement to snowball excessively. A bias exists in favor of extension merely on the *hope* that it will bring results. Whether the results are worth the effort, even from the narrow point of view of the advantage to the state or municipality itself, is not easy to evaluate during the flush of enthusiasm that is likely to attend the introduction and early stages of such a program.

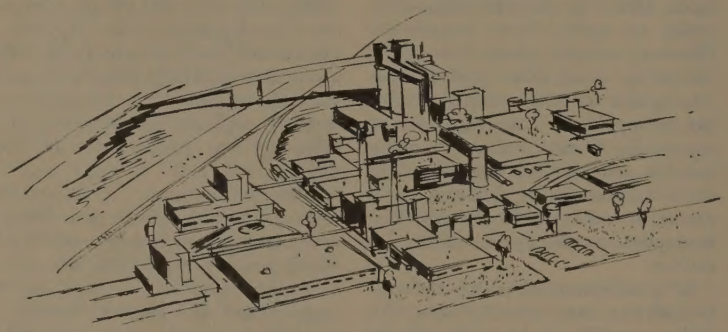
All this competition among the states to attract industry sometimes has undignified aspects. The race for economic development, and the struggle between economic regions, is an eternal one. But it takes on a different color when the states and municipalities join in the fight waged by private economic interests within their borders. It is understandable that sentiment is strong in some states to shift the struggle to a different plane and to take governmental authorities out of the business.

In the competition to attract industry, it is often overlooked that tax exemptions are not the only way in which the tax structure of a state or a city can be made more attractive to new industry. Some states are as active in publicizing their refusal to confer special tax exemptions on new industry as others are in advertising their desire to do so.

Contribution to efficiency

Indiana and New Jersey are among the states that have heavily stressed their belief that all industry, new as well as old, benefits most from a tax structure and a governmental environment which contribute to efficient production and distribution of goods and services. Indiana has made much of the state's freedom from debt as one of the factors encouraging industry to locate there; and New Jersey believes that one of the state's attractions is that once a new industry has moved there, it does not have to fear competition from new tax-exempt firms in the same industry. Even more strongly, New Jersey emphasizes that not only does it have tremendous natural advantages, but that effort has been concentrated in developing a balanced economy which is naturally attractive to new industry.

Finally, those areas fighting the emigration of industry are not likely to find that tax concessions to new industry will do much for them. Their task is to try to offset the comparative disadvantage that causes the emigration in the first place. Often this involves a reconsideration of state and local taxes on industry as a whole.



Unless thoroughgoing revisions have been made in response to years of rapid dynamic changes, the tax structure may have become top heavy, or perhaps inequitable. Industry may indeed be prompted to move from a high tax area to one in which economic underdevelopment and a relatively small local demand for public services has kept tax rates low. This is an inducement that is very hard to combat through countermeasures on the tax side alone.

A very important aspect of the tax subsidy to attract new industry is the kind of industry and firm that is likely to be induced to move in. It is not necessarily an improvement in the economic structure of a state or municipality to add new industries blindly. If the same concession is given to all new firms, without consideration of their need for tax remission, or of the region's need for the industries represented by the new firms, it is highly likely that the program will be highly inefficient.

Even firms that do not need subsidies may be willing to accept them. In this case tax money may be wasted. Other firms will not even take them; but they are likely to react to the program by viewing suspiciously a tax policy that may prove to be a net burden to them. Still other firms must be classed as fly-by-night. They remain long enough to use up the tax subsidy, and then move on to greener pastures. A moderately severe depression, or even regional unemployment, tends to increase the proportion of firms in this category.

This means that the tax-exemption program cannot be allowed to run by itself year after year, without regard to changing economic circumstances. If this mistake is made, there is a real possibility that an unduly large proportion of industry will consist of firms having some disadvantage (such as inferior management) that they are trying to offset through tax subsidy.

Searching investigation

But an active industrial development corporation, if not the tax concession itself, does have one possible advantage from the point of view of encouraging the immigration of economically and socially desirable industry. A searching investigation of a state's resources and economic possibilities is made easier when a governmental body collects and processes information.

It is accepted by exponents of a free enterprise economy that resource use is optimized through consumer choice and the thousands of independent decisions made by pri-

vate firms. But this is not what we have in practice. Government plays an extensive role, though a varying one, in most of these decisions. Thus it is entirely possible that a judicious use of state and municipal prodding can help produce economic decisions that accelerate growth. The burden of proof, however, rests on the advocates of the program, for the program is expensive.

Complex question

How do the firms themselves respond to such tax incentives? This question is so complex that no certain way exists to evaluate the reactions of firms to such offers. A decision to relocate is the product of a number of separate considerations, and these cannot simply be weighed and the net balance taken.

The tax consideration is only one among many, some of which are much more important—for example, markets, supplies of skilled labor, satisfactory sites and access to raw materials. The fact that the decision is based on many considerations makes it difficult for management to respond accurately to questionnaires asking them to rank their reasons for plant location. A number of able investigators have reached the conclusion, however, that the tax factor and financial aid have ranked very low among the considerations leading to industrial location; they have decided that state and local money was therefore unwisely spent.

Since qualified investigators have expressed such doubts, it becomes particularly important to take a hard look at the impact of the programs on state and local budgets. There is a real danger that although some of the poorer states may have been successful in attracting industry, their tax revenues and budgets have been adversely affected. This may be so even after taking into account any rise in incomes and general tax revenues resulting from industrial immigration.

There is a possible conflict of interest here between the states and the municipalities. Since the primary revenue source of the latter is the property tax, the cost of development programs is largely borne by this tax. Of course, if the program is successful, property tax valuations will gradually rise, but the lag will be rather long. The major rise in revenues, at least during the first few years of the program, occurs in sales and income taxes. But these generally benefit the states rather than the municipalities.

A rise in state revenues may be offset by a need for more public services to take care of the industrial immigration. But to the extent that the increase in state revenues is not thus absorbed, it will be that much easier for the states to satisfy local demands for grants-in-aid, or to yield certain tax revenue sources to the municipalities.

Indirect effects

The major reason that studies of the loss of tax revenues are usually restricted to the property tax is that the indirect effects on yields of other taxes, and on state and local expenditures incurred as a result of the immigration of industry, are difficult to estimate. On the tax side, it is not a great task to estimate revenue yields accruing from rises in property values, incomes and taxable spending associated with a given increase in new industry. But it is quite another matter to determine what proportion of these rises is attributable to the tax remission program and what part would have occurred in any case.

Lack of centralized state records of local finances makes it difficult to obtain reliable estimates of the narrowing of the property tax base resulting from the tax concession. Relatively good records exist, however, for Louisiana. William D. Ross, in a thorough study of this experience, concluded that the estimated total cost to state and local governments over a 10-year period was more than $51 million (assuming that all the firms remained the full period, and that tax rates did not change). The estimated amount of new investments resulting from the tax program was about $25 million and total exempted investments were $355 million. The author concluded that, on the basis of this evidence, the results were small and that the cost of the program, considering the amount of property tax revenues foregone, was excessive.

Obviously no close advance estimates are possible of the additional public spending that must be undertaken when new industry locates within a state in response to tax inducements. One mitigating circumstance is that a substantial part of the new investment is likely to be made by firms already within the states and localities. Thus it may be that little change occurs in the character of the labor force, or in the needs for public services.

When industry enters the state, however, a marked change in these needs may occur. Suppose a higher degree of skill is required so that steps must be taken to increase the average level of education. This means more and better schools and a greater need for tax revenues. Surely this would be regarded as a *social welfare* move in the right direction; but, if so, comparisons of financial costs and benefits are too narrow. States, and especially localities, cannot consider solely social welfare aspects of the question.

The poorer states and municipalities in particular cannot ignore the financial costs. They may simply not be in a position to encourage an industrial development that does not promise benefits to public budgets, even though on other grounds there may be arguments in favor of undertaking the program.

Social implications

We come finally to the question of the broad social implications of competition among the states to attract industry. On balance there is little doubt that unbridled competition of this sort has grave social costs. Let us grant the point made earlier that state development corporations undoubtedly do perform a service in focusing attention on the economic potentialities of certain states and municipalities, which may have been insufficiently appreciated by private enterprise; the net effect, however, of their efforts is quite likely to be to distort the use of resources. An effort is being made to modify the comparative advantage of different regions through the artificial reduction of one of the firm's costs.

The infant industry argument does mildly support the case for the practice in a few instances. Sometimes a little push produces results out of proportion to the effort involved. But the essence of tax con-

cessions to new industry is that *all* firms are eligible. This is an extremely wasteful way of encouraging economic development, a fact which is illustrated in the case of Louisiana.

In a world of scarcity, and of vast differences in the natural endowments of the different states and municipalities, there is every incentive to find constantly better ways to accomplish the optimum rate of economic growth for the several states and regions. State development corporations should step up the work they are doing on long-range planning. But more important than this, coordination is needed from the top.

Something needs to be done to replace interstate and intercity competition with broad planning that takes account of the economic realities underlying relative economic progress in different parts of the country. How far should New England, or the State of Michigan, or any other region, go in trying to maintain the rate of growth to which they believe themselves entitled? The spirit of healthy competition requires that they be alert to the problem. But a healthy national economy likewise requires that limits be set to the extent to which the states act independently and against each other's interests. ■

The economic side of the Congo crisis

Regional Interests vs. National Needs

by MILDRED AND EDWARD MARCUS

■ FOR BETTER OR WORSE, the Belgians have given independence to the 14 million Congolese. The problem that now faces the Congo is: Can it remain united? Or will the six provinces find it impossible to exist together and, therefore, split the federation? Such a break would ruin the Congo's economy, for there is a basic economic interdependence among its peoples and provinces.

The forces tending to split the Congo are strong. In spite of what the Belgians did to develop the country, great numbers of the Congolese still live by subsistence farming. The bulk of the Congolese live in the "bush" where tribalism is a powerful factor. Their loyalty is to the tribe; the nation means nothing to them. In the whole country there are some 300 to 400 tribes and nearly as many languages. There is little intermarriage and much intertribal antagonism. These warring factions are divided culturally, socially, and, therefore, politically.

Another gap exists between the cities and the country. In the cities the Congolese live in the modern world. In the bush they live in a largely primitive society. Many of the city dwellers are former residents of the bush. These Congolese have become wage earners and have become accustomed to a much higher standard of living. They are unwilling to go back to the bush and live as their forefathers did. But in Leopoldville, the capital, the primary economic problem at present is unemployment and underemployment. Paid employment has attracted a far greater number of people to the urban area than there are jobs. According to recent reports, half of the working population has lost paid employment because of the recent instability in the city.

The city dwellers are completely dependent on wages for their livelihood, and especially during the last two decades have expanded their demand and ability to pay for consumer goods. They no longer restrict their purchases to manioc, beer, cigarettes and cotton piece goods. Urban Congolese have had artisan, vocational and basic clerical training and have become accustomed to good wages. As a result, the demand for meat, radios, bicycles, sewing machines and household goods has increased. The basic needs of the urban Congolese have expanded, as have their requirements for quality. Brand name consciousness has developed, and "Arrow" shirts, "Coca-Cola" and "Belga" cigarettes are a definite part of the urban workers' standard of living.

Geography is another factor that tends to divide the country. Before the Belgians came, the immense difficulty of travel, especially in the large jungle areas, isolated many sections. Even today the transportation system of the Congo needs extensive improvement. Poor transportation facilities hinder unification. There is no Congolese market. There are marketing areas centered on major cities—Leopoldville, Stanleyville and Elizabethville—but not a national market. A trans-Congo shipment of produce often requires many transshipments—from ship to rail, to riverboat, to train, to road.

The resulting high transport costs create local markets and, therefore, exclude interest in other areas. The lack of common economic interests carries over into the political and social areas, and results in separatist thinking. This, of course, is further intensified by the lack of communication between Congolese living in different areas. The rural population has little contact with the urban centers in their own province, let alone contact with other provinces.

Economic development directed by the Belgians was, necessarily, on a regional basis and did little to foster national unity. Although the Congo's natural resources are extraordinarily abundant and diversified, they are clustered in different provinces. Thus Katanga Province is rich

in copper, cobalt and uranium; Kasai is well endowed with industrial diamonds; Equator Province is an oil palm and rubber center; Eastern Province is gold and cotton country; Kivu has coffee, tea and other crops; and Leopoldville Province is an industrial and commercial center, and has an enormous undeveloped hydroelectric potential.

The major source of the Congo's wealth is the mineral development in Katanga Province. The former government collected the major part of its revenue from this region. These funds were then spent on economic development throughout the country, especially in the less fortunately endowed areas.

Both the Africans and the Europeans in Katanga were extremely agitated by this policy. They objected to "subsidizing" the rest of the Congo. Thus, strong separatist feelings existed in Katanga several years prior to the country's independence. The straw which threatened to break the camel's back several years ago was the announcement of the "Inga" project. "Inga," a hydroelectric scheme to be developed over a 25-year period, was to cost an estimated $3 billion. The full potential of the Inga Rapids Project was 25 million kilowatts. With this power, more than 10 times that of our own Grand Coulee, it would be possible to establish an industrial complex in the extreme western part of Leopoldville Province, near the Congo's outlet to the Atlantic Ocean.

Industries consuming large quantities of power and water were to locate in the area. The primary one, aluminum, would consume sufficient power to make the hydroelectric installation economically viable. The bauxite reserves in the area were estimated at some 200 million tons, and Belgian, American, Canadian, English, French, German, Italian and Swiss private enterprises were interested in investing in the area.

Another possibility for foreign investment was the refining in the Inga vicinity of metal mined in the Kasai and Katanga Provinces—zinc, tin, tungsten, columbium, lithium and rare earths. Other industries planned included fertilizers, and wood pulp and paper.

This industrialization program would shift much of the economic and political power from the eastern part of the country, Katanga, to the western end, Leopoldville Province. It would, in addition, create the need for a sizable public investment. Interests in Katanga were alarmed that this vast scheme would be subsidized by the mineral-rich east. Furthermore, they believed that the pooling of tax revenue in the country to finance such a program would drastically cut development programs in their own area.

Obviously the Leopoldville Province would depend on tax revenue from the Katanga area since it lacks mineral resources of its own and, therefore, large amounts of revenue. Still, it is equally obvious that the industrial development at the Inga site would benefit the country as a whole.

Katanga Province, as a producer of raw materials, is economically oriented as an exporter. The market for its product is overseas, not the Congo. Its mineral exports are the nation's primary source of foreign exchange. Leopoldville Province, on the other hand, depends on this

foreign exchange for its imports of capital and consumer goods. Without foreign exchange supplied by Katanga, the Leopoldville area would be in danger of economic collapse. As is now evident, the lack of imports produces unemployment for hundreds of thousands of Africans who have become urbanized.

Belgian policy in the Congo has been economically oriented. It stressed the stomach first, education second and politics third. This policy spread an orientation toward jobs, especially in the urban and mining areas, but it did not weld the people into a nation. Politics was largely neglected, and the first elections in the country were held only as recently as 1957. Even then these elections were local and not national. The people tend to think locally, and there is little understanding of a national cultural or political orientation.

Primary education stressed

Belgian policy, too, was directed toward raising the masses as a whole rather than the development of an elite who could serve as leaders. Primary education was stressed. More than one and one-half million Congolese children are in primary schools. However, only a few thousand attend secondary schools, and the university students are numbered in the hundreds. University training for the Congolese has been available only in the past few years; the number of graduates are in the dozens.

The resulting lack of able leaders is an enormous handicap for the new nation. Managerial positions above the junior level in both industry and the civil service were Europeans-staffed, and the highest ranking Congolese in the army was only a sergeant. There are also few Congolese businessmen. Commerce and trade were in European hands, mostly Belgians, but also Portuguese, Italian and Greek.

It is nevertheless true and pertinent that the Belgians provided the Congolese with primary and technical education that is more widespread, comprehensive and advanced than in most parts of tropical Africa.

Outside of West Africa, Africans do not hold as many and as wide a range of technically skilled jobs as do the Congolese. This is also true in the lower clerical levels. The work that is done by the Africans in the Congo is usually done by Europeans without higher education and skills in South Africa, in the Rhodesias (with the exception of the copper mining area), in former French Equatorial and West Africa, and in East Africa. The Africans in the Congo were the machine operators, mechanics and locomotive engineers.

The dearth of Congolese in re-

sponsible positions in the civil service, the army and business prevented the birth of a national spirit. Jobs provided income for a rising standard of living, but there was no connection between a job and a feeling of national unity. The tribe was the highest political affiliation. Historically these tribes worked against each other. Clerks from different tribes were placed side by side to prevent fraud or collusion. The army too was tribe-oriented. When used as a police force, members of one tribe were used to keep order in another tribe's area. This policy aggravated tribal distinctions; it prevented unity based on nationalism.

The Belgians were aware of the lack of economic and cultural unity in the Congo and were taking steps to remedy the situation well before the Congo became independent.

Improved road system

The two postwar Ten-Year Plans stressed the improvement of the motor road system in the Congo, especially in rural areas. Although the roads feeding the large cities are good or fair, the country lacks a good trans-Congo route. This was to be remedied. The current lack is due to a former policy which avoided the duplication of transport facilities. This was done for budgetary reasons, but in the long run it could not have been economic. The policy prevented the building of a motor road or railroad where water transport was available, or a motor road where a railroad ran parallel to it.

Although this saved construction costs, it necessitated loading and unloading of passengers and freight from water to rail to road transport, and was exceedingly expensive. The second Ten-Year Plan called for the construction of transport facilities, especially roads, that would cut the number of transfers.

The second Ten-Year Plan also took cognizance of the uneven distribution of population. The agricultural development provisions would have benefited the country economically and definitely stimulated unification. Farmers in overpopulated areas were to be settled on the best soils in the region and given intensive agricultural instruction. Many subsistence farmers would have been switched to the production of marketable or money crops. This would have made them realize that the tribe was not their only economic and political affiliation.

All these plans of the Belgians were interrupted after the Congo became independent. In addition, the country was suffering from an economic recession on the day that it was celebrating its freedom. The growing problem of unemployment, decreased business activity, lower government revenue and curtailed spending for development had caused increasing dissatisfaction with Belgian administration and determination for change. The Belgians, faced with the economic recession in the Congo, the constant Congolese cries for freedom, the trend to independence in tropical Africa, and fully cognizant of the treatment the Dutch received in Indonesia, threw in the towel.

Since the Congo is primarily an exporter of raw materials, the economy is extremely sensitive to world economic conditions. Like other underdeveloped areas, the country is dependent upon world prices of mineral and agricultural produce. These include cobalt, diamonds, palm oil, coffee, cotton, and, especially, copper.

A decline in raw material prices, therefore, creates serious repercussions in the economy. The 1956 drop in the price of copper, for example, created unemployment, a severe fall in wage income and company profits, and a decline in government revenue because of decreased export taxes. This, in turn, caused many small factories and trade establishments to fold. In Elizabethville, the copper center, the decline resulted in a 25 per cent reduction in wholesale and retail trade volume.

Development projects

The government had undertaken extensive development projects financed by income from the copper industry. Reduced taxes cut the development programs. In addition, other industries and trade establishments in the area failed, and further reduced income. The resulting economic recession induced many Europeans to withdraw their capital for transfer to Europe, the Rhodesias and South Africa. The reduction of government receipts from the copper industry also meant that fewer funds were available to alleviate the depressed economic conditions, especially unemployment.

To combat this instability the second Ten-Year Plan included a program to stimulate industrial diversification and to increase agricultural efficiency, thereby making the economy less tied to raw material prices. However, the program was too little and too late. The unem-

ployed had grievances that became tribal animosities. Riots which were economic in origin became political.

Repercussions were soon felt in other areas of the Congo, especially the urban centers. Industrialization in Leopoldville had created a growing labor force, much of it unskilled. One and one-quarter million Congolese are wage earners. Soon after the copper slump, business declined in Leopoldville, Stanleyville and the other major centers. Unemployment then became a national problem, and riots for independence spread throughout the country.

The independent Congo faces a whole range of problems. Unfortunately, the lack of educated leadership, for business and the government, the lack of sufficiently skilled manpower, and the lack of capital are the major obstacles to the country's economic and political development.

The birth rate is rising and the death rate is declining. How will the economy support the rising population? Funds for more education and training for intensive industrial and agriculture development are needed.

In the past, large-scale investment in the Congo has been largely in mineral and agricultural export industries. This involved enormous amounts of capital. The investment was made mainly by Belgian monopolies and the Belgian government. In order to stimulate investment in coffee, cotton, rubber and tea plantations, the government often bore the original costs of experimentation. When the experiment succeeded, it was sold to private enterprise, and the government then reinvested the proceeds in a new development.

Survival of the efficient

Since costs of production are so high in the Congo, only the most efficient concerns survived. The Belgian administration was opposed to increasing tariffs to protect home industry because it hoped to avoid the creation of a host of resulting problems—a rising cost of living and a decrease in foreign investment. The administration preferred a low tariff policy to provide low-priced consumer goods for the Congolese even when this resulted in a high quota of imports in relation to domestic production. This problem of industrialization and tariff policy will have to be faced by the Congo. It will need specific assistance with its development program from the United Nations, or some other agency or countries.

One of the big questions in the Congo today is: What will be the attitude of the government toward foreign investment? The lack of Congolese leadership makes a policy of seizure or nationalization unlikely unless it is incited by outside, anti-free world forces. On the other

hand, there is little inducement for new private foreign capital to enter the Congo at the present time. This means that the Inga Rapids Project will be postponed indefinitely. Unfortunately, this project is the one which would have resulted in a maximum of economic interdependence in the Congo and would have greatly helped to weld together the various provinces.

Another problem stems from social legislation introduced by the Belgians. They instituted minimum wages and social security programs, which sometimes resulted in wage rates significantly above those warranted by productivity. The larger companies operating in the Congo were required to provide schools, social benefits and family allowances to their employees. The standards were high and the comparatively small new companies that were required to provide such facilities were at a disadvantage with regard to costs. This problem of productivity versus desired standards of living and development will also have to be tackled. The Congolese will need expert economic advice in order to achieve an intelligent development program in this area.

The number of skilled technicians is still too small. Training programs need to be extended and young people to be directed into those areas which are indispensable to a planned development program in industry, agriculture and government.

It is also necessary to start elementary business education courses for prospective Congolese entrepreneurs. Little training, however, should be done in the handicraft skills because productivity in such trades is usually quite low. A greater contribution to total output as well as to individual income would be obtained through industrialization, technical training at all levels and agricultural instruction in the efficient raising of cash crops and livestock.

The need for qualified teachers also requires that provision be made for foreign teachers and specialists to train both new Congolese instructors and those who are already teaching but are inadequately prepared.

In order to unify the country and create a national market, an extension of the existing road system is necessary. In particular, cross-country roads linking the major centers are desirable, with supplementary feeder routes tapping the hitherto isolated agricultural areas with possibilities for development that are above average.

The events of recent months in the Congo make it plain that the country was in a too great a hurry to be free. The consequences have not all been counted yet. The dilemma which the free world faces is that the Congolese who advocate a united nation are under Communist influence, while those who are most pro-Western are separatists. The choice facing the Congo is either to be a number of small nations that could not survive alone, or else to unite economically and politically to achieve progress. In the latter case, the Congo needs help in all areas of human endeavor. It is to be fervently hoped that such assistance will come primarily, and be accepted, from a neutral source, like the United Nations. This could save a united Congo from the fate of a captive nation. ■

The oil glut

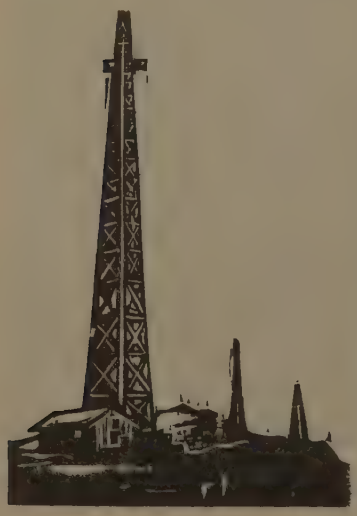
A LESSON IN EXCESS CAPACITY

by HELMUT J. FRANK

ONLY A FEW YEARS AGO most experts held that the United States would soon be unable to produce enough oil for its domestic needs. Today our oil wells could produce over 25 per cent more than they do. The question used to be asked, "Are we running out of oil"? Now it is, "How can we stem the flood of unwanted oil"?

This change has been sudden and drastic. Why did it occur? How great is the United States surplus, and how serious is its impact? Can we reasonably expect conditions to improve in time, or will we need to make basic changes in producing practices and governmental policies toward the oil industry?

The oil surplus does not exist in the United States alone. In other parts of the world, notably in Venezuela and the Middle East, the productive capacity of oil fields is well above current demand. Just as these countries find control of productive capacity increasingly difficult, so the United States is discovering that its problem is very hard to solve. This is in spite of our isolation from the world market since mandatory import controls were enacted early in 1959.



Petroleum, with an average long-term rate of expansion of about six per cent per year, has traditionally been an outstanding growth industry. In recession years the increase of consumption slowed down—the sales volume hardly ever decreased—but this was always made up by accelerated advances during the next upswing. This strong upward momentum carried through the first postwar decade. But during the past four years, demand has grown by an average of only about 2.5 per cent a year. Moreover, there is strong evidence that the industry has entered a new phase, during which its expansion will be far less rapid than before.

Manifest improbability

In part, this more modest rate of growth mirrors a smaller increase in total energy consumption in the United States. Even more significantly, the very high growth rate achieved by the petroleum industry previously had been due to the inroads which oil and gas were making on coal, wood and other fuels. Up until 1956 oil and gas consumption was expanding twice as fast as total energy consumption. Had this trend continued, oil and gas would have taken over the entire energy market by 1970—a manifest improbability in view of the special advantages which coal and hydroelectric power possess in specific uses and locations.

Since 1956 oil and gas consumption has continued to outpace the growth of other fuels, and their combined share has grown to nearly three-quarters of the total energy market. But most of this recent increase has been of gas rather than oil. Thus, the growth of fuel oil sales, which make up over two-fifths of total oil consumption, has slowed down enormously, while gas sales continue to expand rapidly; some analysts even predict actual decreases in the use of oil by the vast space-heating market. In thermal power plants, which represent the most rapidly growing energy sector, the prospects for oil are even bleaker, particularly since natural gas is being sold as boiler fuel at very low prices.

Even in the case of motor vehicles, where other fuels cannot be readily substituted for oil, the chances of achieving a high growth rate are slim. The average compact car gets 50 per cent more mileage from a gallon of gasoline than the average standard make. The only petroleum products currently registering healthy growth rates are jet fuels and other "minor products," such as asphalt and road oil—used chiefly in highway construction.

Rigid price ceiling

Slower expansion of final demand is only one of the elements contributing to the oil surplus. Another factor cutting into the demand for crude oil has been the sharp reduction, in recent years, of the output of heavy (or "residual") fuel oil by refiners. Under normal conditions, heavy fuel cannot be sold above the comparable price of coal, with which it competes intensely in a number of uses.

But coal prices, under the impact of an extensive program of rationalization and modernization, have not increased during the past decade. This imposes a rigid price ceiling on heavy fuel oil. In fact, this product sells typically for less than the price of domestic crude. Heavy fuel oil can be produced economically only from low-gravity, low-value crudes, such as those in the Caribbean; but this results in a displacement of domestic by foreign oil. This tendency has not been ended by the mandatory import controls, since imports are allowed when there is a gap between demand and domestic production.

Finally, the rapid growth of natural gas production has been accompanied by an almost equally high growth rate of natural gas liquids—by-products of natural gas. New refining processes have been developed to upgrade these by-products into high-octane gasolines, thus again

displacing large quantities of crude. Together, these influences have apparently changed oil from a "growth" to a "slow growth" industry.

During the Korean war, the federal government became concerned over the industry's ability to meet emergency demands in an international crisis. Government petroleum experts recommended that a surplus capacity of one million barrels per day—then about 15 per cent above actual production—be developed and maintained as insurance against any emergency. By mid-1954, however, this surplus had reached not one, but nearly two million barrels a day; and since 1958 it has ranged between 2.7 million and three million barrels per day.

Slower increases in the demand for energy and inroads of natural gas and gas liquids have by no means been the sole factors responsible for the surplus. Recent events make it clear that the industry has raised its crude producing capacity far above current requirements, including a safety factor for emergencies. Why should this have continued well into a period of sharp production cutbacks, weakening prices and declining earnings?

One reason is largely technical. The prime attention of management, as well as officials responsible for national policy, traditionally has been focused not on productive capacity but on "proved reserves." Estimates of such reserves, which are compiled annually by the American Petroleum Institute, are so conservative that some top oilmen now consider them practically worthless. The A.P.I. estimate of "proved reserves"—reserves that are economically recoverable—at the end of 1959 was 31.7 billion barrels. A more liberal estimate of proved reserves raises the figure to 45.8 billion barrels.

Recoverable reserves

If one adds to this, as does the Secondary Recovery Committee of the Interstate Oil Compact Commission, amounts recoverable from present fields by processes known to be physically workable but not yet tested commercially, total recoverable reserves become 89.8 billion barrels, nearly three times the A.P.I. figure. One suspects strongly that, because it focused for many years exclusively on "A.P.I. reserves," the industry drilled many more wells than were required to assure its resource reserves during the foreseeable future.

An even stronger factor in producing excess capacity has been the emphasis placed on development drilling. The number of development wells exceeded 40,000 per year during the mid-1950s; since then it has fallen only very slightly—except in 1958, a recession year. By contrast, exploratory wells, which are drilled to discover and define new fields rather than to expand immediate productive capacity, have fallen from a peak of more than 16,000 in 1956 to about 13,000 a year.

The chief blame for this lopsided emphasis must go to the leading producing states for the manner in which they have been handling prorationing—production quotas. Production quotas are typically set with regard to number, or, at best, number and depth of wells. No allowance is made for the area a well can adequately drain without violating sound conservation practices.

Vicious circle

The result is a vicious circle: operators will find it worthwhile to drill additional development wells, even though fewer wells would perfectly suffice. This is because a larger number of wells gives them a larger production quota, and thus they get a faster return on their investment. The state authorities then have to reduce allowables—quotas—further in order to spread the available market among the greater number of wells. And this, in turn, augments the pressure for still narrower spacing of wells.

Excessive development drilling is by no means the only source of the oil industry's difficulties. Another is the failure of the price mechanism to function effectively at the crude oil level. Crude prices are clearly administered, rather than determined by the market, and have shown a marked upward tendency in recent years. In part, this reflects the fact that an exhaustible natural resource will eventually become more expensive to produce, though this tendency is slowed by improvements in the techniques of finding and producing oil.

In addition, inflation is still exercising a strong impact on crude oil costs; the industry is gradually using up reserves discovered before World War II, when prices were far lower, and replacing them with reserves developed in recent years. Finally, unit costs have risen sharply in the last few years, because as production is cut back, overhead costs (which constitute the major share of total costs) are spread over fewer and fewer barrels of production.

These tendencies toward increased prices have been powerfully reinforced by governmental policies on both the federal and state levels. Federal policy, through the depletion allowance and other tax benefits, permits higher profits to be earned in the production phases of petroleum and other mineral industries, and thus tends to attract additional capital into them. Any long-term tendencies toward increasing real costs should be slowed down by this flow of capital which should increase efficiency. There are, however,

offsetting factors which tend to increase prices.

For one thing, the depletion allowance is based on the gross value of production (subject to a limit of 50 per cent of net income), so that higher wellhead prices mean a higher depletion allowance. For another, vertically integrated firms are able to benefit from higher crude prices, even if the price of finished products does not rise equivalently. According to a study by Professors de Chazeau and Kahn of Cornell University, an integrated oil company that produces 38.5 per cent of its crude requirements will gain from higher crude prices even if only 50 per cent of the increase is passed on; if it produces 77 per cent of its crude, it will benefit even if product prices remain entirely unchanged.

Prorate output to demand

An even more pervasive influence on crude prices is the form of conservation policy practiced by most leading producing states. In addition to setting purely physical limits on production, clearly designed to prevent wasteful use of natural resources, they prorate output in line with the market demand for their crude oil.

Two assumptions appear to underlie this policy. First, demand for petroleum products is held to be virtually inelastic—sales would not expand significantly if prices were allowed to fall. Second, this policy seems to rely entirely on a physical, rather than economic, concept of conservation—that is, prices should be high enough to cover operating expenses of inefficient wells, regardless of whether the additional reserves thus made available are actually required, and regardless of the cost involved. If, as a result, potential production exceeds market demand (at prevailing prices), it is not the marginal wells—the least efficient—which are forced to shut down, but the most productive ones.

Shored-up prices

The operation of these policies was strikingly revealed on the two occasions when crude oil prices were last raised. In the summer of 1953 prices were advanced, although the strong demand forces active during the Korean boom had already begun to weaken and product prices had begun to decline. Again, early in 1957, during the Suez crisis, crude prices were raised although refined products were in heavy surplus. In both instances the state authorities shored up crude oil prices subsequently by ordering deep production cutbacks. In Texas the number of producing days for prorated wells fell to 123 in 1959; they may not exceed 105 in 1960.

Two major conclusions emerge. First, there is no automatic mechanism capable of adjusting crude supplies to requirements. In fact, it is doubtful whether the flow of investment funds into oil responds promptly and adequately to changing capital needs, in view of the industry's unusually heavy reliance on internal financing. Second, public policy, through tax provisions, market demand prorationing and, recently, mandatory import controls, has greatly enhanced the attractiveness of producing operations, thus increasing the flow of capital into the industry. What are the implications for the future?

The most striking aspect of the current situation is that we are in the dark as to the actual amount of oil in the earth and the probable growth of future requirements. Oil geologists are unable to tell us how much oil we have. Changes in technology and demand prevent economists from accurately forecasting future needs. It is therefore impossible to judge definitely whether the surplus is limited to current productive capacity, with reserves only barely adequate for future needs, or whether the reserves are more than adequate.

Facts lacking

Moreover, we do not, so far, have the facts needed for determining the likely oil requirements in a future (as distinct from a past) emergency, or for judging the importance of maintaining a high degree of national self-sufficiency in oil, the cost of doing so, and the best manner of allocating the burden. Until we have reliable answers to all these questions, no sound basis exists for evaluating current policies.

We may find, upon careful, objective examination, that the current surplus is purely in productive capacity and is likely to be absorbed during the next few years as demand expands. In that case, the principal policy change needed would be a modification of prorationing practices that would remove the incentive toward excessive development drilling. The total flow of capital into producing operations should not be discouraged under such conditions.

On the other hand, we may find that recoverable reserves, as a result of technological progress, have become more than ample for our future needs. If that is so, present incentives to invest in oil production may have to be reviewed to determine whether they have attracted excessive resources into the industry. In that case, also, it might be desirable to consider modifications in current conservation practices—modifications aimed at strengthening the price mechanism so that changing market forces could influence conditions in crude production more effectively than at present. ■

CHALLENGE NOTES

Economic Developments, Ideas and Phenomena

SAVING THE DOLLAR

Thus far, all official efforts to reverse our unfavorable balance of payments have concentrated on measures which the government can undertake directly. The cut in military dependents, the "buy American" policy in overseas post exchanges and the continuing pressure on our Allies to shoulder their share of the military and foreign aid burden all fall into this category. Since our unfavorable balance of payments is largely the result of our foreign aid and military programs, this emphasis makes a lot of sense.

But short of scrapping our military and economic commitments—something that even the most anxious defenders of the dollar hesitate to advocate—by how much can this sort of action reduce our annual $4-billion deficit? The return of military dependents, for example, is expected to reduce the deficit in our balance of payments by about $600 million, or by about one-tenth, when completed. The film *Ben Hur* alone cost $100 million to produce (mostly overseas). It would take only a modest increase in overseas private investment to undo much of the current effort to bring our international payments back into balance.

Unless, therefore, direct action to curtail some of our less important international commitments is combined with indirect measures designed to provide more attractive investment opportunities in this country we shall not be able to reduce our international deficits or stem the flow of gold out of this country. In the final analysis, the fate of the dollar depends upon our ability to find creative new employment for capital (and labor) in this country.

THE POWER OF STEEL

Not so long ago, the newspapers were full of accounts of Congressional investigations into "administered pricing" in the steel industry, and there was much discussion of the economic power this was supposed to confer on a few key managements.

Today it is clear that one thing that the steel industry cannot do—and this suggests that there are limits to its pricing power also—is find the customers to keep its mills fully occupied. At present, steel mills are still operating at a little over 50 per cent of capacity and *The Wall Street Journal* (if not the industry) finds it a cause for optimism that production is expected to rise to 60 per cent of capacity this quarter. Small wonder that, a year after an expensive wage settlement, the expected price hike in steel has failed to materialize.

The fact of the matter is that steel, while still a basic industry, is no longer quite as basic as it used to be. Aluminum, plastics and other substances are performing many functions once performed exclusively by steel. Changes in the market—in particular the smaller size of automobiles—are also shrinking the effective demand for steel.

As a result, the pricing policies of steel companies no longer seem quite as crucial as they used to. The corruption of absolute power is one thing we do not have to fear in a dynamic society.

BOOKS BECOME BIG BUSINESS

The giant TV networks and the monolithic newspaper and magazine publishing houses have been an established aspect of our mass communications system for more than a generation.

Until recently, however, there was one mass communications field where the relatively small businessman could and did survive. That field was books. While there were important exceptions—especially in the case of those publishers who concentrated on textbooks and service manuals of various kinds—book publishing in the main resisted the trend toward merger so that the manager-owner (usually a man with a passionate interest in books as such) continued to dominate this business.

This situation has changed drastically during the last two years, which have witnessed a wave of mergers. If, as seems likely, this trend continues, book publishing will soon be as concentrated, impersonal and efficient—but not, we hope, as bland—as other communications industries.

With the wisdom of hindsight, it is easy to see why book publishing, after resisting the general trend for so long, is finally succumbing. One of the peculiarities of book publishing has traditionally been the absence of a *continuous* and *predictable* market. Authors of books do not, alas, continuously publish best-sellers; unlike the publisher of a magazine, a book publisher has no way of telling what the relationship between press run and sales is going to be—or so it was believed until recently.

But the market for books, as for other products, has been changing. For one thing, the boom in education has created a tremendous demand for textbooks at all levels—a demand which is much more predictable and which requires a large promotional overhead to service. Second, there is the revolution in paperbacks which, by reprinting hardback originals, classics, etc., reach a somewhat more predictable mass market. Under the circumstances, the economic advantages of "bigness" have become well-nigh overwhelming.

All this could have been predicted long ago. Unfortunately, long-range market planning is not yet an integral part of business thinking. Until it is we shall continue to be surprised—sometimes unpleasantly—by "sudden" changes in industries like books and steel.

SCIENCE MARCHES ON

Is your dog an unhappy, maladjusted social outcast? He may not know it, but he is probably suffering from bad breath. According to a "scientific" survey, 40 per cent of the nation's 22 million dogs suffer from halitosis. A Nevada firm (which made the survey) has come up with a canine mouthwash, *Happy Breath*, designed to change all this. And what even his best friend won't tell him, you can.—M.K.

Challenge Interview

MARCUS NADLER

Professor of Finance, Graduate School of Business Administration, New York University

Board Room Economics

Q *Dr. Nadler, you are consulting economist for one of our largest banks, the Hanover Bank. What precisely does a consulting economist consult about?*

A My work for the bank is twofold. First, I act as a consultant for the bank's management. Second, I assist the bank's customers.

Q *What does this work typically involve?*

A Here's an example. A bank is, of course, interested in interest rates. Every bank has investment portfolios and wants to know the right time to buy and sell securities. My function, therefore, is to give the investment officer of the bank my views on the money market and on the bond market. He then acts accordingly. The final responsibility is his, although the advice is mine. Of course, this does not mean that I have no responsibility. If his judgment is wrong, he may lose money. But if my judgment is wrong, I lose my reputation. And in business it is easier to make up lost money than to make up a lost reputation. I am fully aware of the fact that if I prove consistently wrong, my contract with the bank would come to an end.

Q *Since the bank has its own staff of economists, why should it seek outside advice?*

A The advantage of using a consulting economist is simply one of getting an outside opinion that does not necessarily reflect the opinion of the firm. A man who works only for one firm meets the people for whom he works every day, at lunch, and often socially. Soon he begins to reflect their views. And even if his views should differ from those of the management, he may be reluctant to voice these differences since his livelihood depends on his ability to maintain the confidence of his employers.

Q *Any other advantages?*

A Yes. The consulting economist can usually give advice on questions that staff economists are not familiar with. Many business organizations want their economists to be specialists in their own field. An oil company, for example, will want its economist to be an oil specialist. Now, I am not an oil expert, but I have done consulting work for an oil company for a great many years. But my consulting work for them has not been in oil, but in my three specialties—the money market, international finance and general business activity. It is generally the case that a consulting economist is not a specialist in the specific industrial problems of a company that retains him. As a rule he specializes in those fields for which the company does not require a regular staff.

Q *Do you think that there is a growing tendency to use outside economists as consultants?*

A It's a growing trend all right. The only difficulty is finding good, professional economists whose consulting services are available on a more or less continuing basis. This is no easy matter. Such men invariably have other teaching or consulting commitments, and adjusting time schedules is often difficult—especially if the constultant does not live near the headquarters of the company.

Q *You say that one of your jobs is to advise the bank's customers? What sort of problem do you generally advise on?*

A A very usual situation arises when the management of a client firm is divided on a particular problem. They will then call me in to act as a sounding board. Since I usually don't know very much about the personalities involved, I can give them the benefit of a fresh outside view. Very often what I say helps to determine the way management decides.

Q *Could you give us an example?*

A Shortly after the war one of the Hanover Bank's larger clients called up and asked me if I would meet with their Board of Directors in order to give my advice on a special problem they had. I naturally agreed and asked them what sort of problem they wanted my advice on. They wouldn't tell me anything except that it had something to do with construction. When I met them a few days later, it turned out that they wanted my advice on the timing of a $10-million construction program they were planning. Should they start con-

struction right away, or should they wait for another two years when building costs might be lower? In other words, they wanted my general opinion on future building costs.

Q *How did you advise?*

A First I asked some questions. How large a building program did they contemplate? They were thinking of a 10-year program. And over how long a period would the program be depreciated? The answer was 20 years. This came to $500,000 a year. Well, I said, suppose you were able to build for 10 per cent less than at the present time. That would be a $450,000 a year depreciation. And then I put my question: Is it advisable for you to spend an additional $50,000 a year over a period of 20 years in order to be competitive from the start?

Q *What happened then?*

A Well, one of the senior directors burst out laughing. "Here we have been spending six weeks discussing whether or not to build in terms of what is going to happen to building costs. And it takes your question to make us realize that this is not the problem at all. The problem is whether it is worth our while to spend $50,000 a year in order to be competitive. Put that way, the question answers itself. Of course it is."

Q *What is the moral of this tale?*

A The moral, I think, is this. In business there are a few basic principles. Once you have mastered these basic principles, your job is to apply them to a given situation. Now, the economist is often in a better position than the businessman to put specific problems in the context of these general principles. In the case just cited, the directors took the position they did because, as businessmen, it was a question of accounting. How much does it cost and how much can I make out of it? As an economist, I have been trained to look at such questions from a broader "economic" point of view. What is it that is really at stake? Clearly, it is the competitive position of that particular company. This is where the economic point of view can prove so useful.

A growing need

Q *Do you feel that there is a growing need in business for this broader point of economic view?*

A There unquestionably is. Managements are increasingly anxious to have economists express their views at board meetings.

Q *Is this interest something relatively new?*

A I don't know whether it is new or not, but I do know that the demand on my time to address company managements and industry groups has been very great. In general, I should say that the demand for this kind of economic consulting exceeds the supply.

Q *How do you explain this shortage? After all, such work pays well, and there must be many academic economists who would like to supplement their incomes in this way.*

A Well, there are a great many people who want to consult and talk before industry groups. Now, there is no problem in preparing a talk—it's something that you can prepare in the privacy of your office and talk over with your colleagues. The real test comes when your talk is finished and the questions begin to follow fast and furious. To answer these questions, the economist must have not only a high level of professional competence, but also the kind of practical imagination which can reduce problems to concrete situations with which the businessman is familiar.

Q *How about the professional language of the economist? Is this a problem?*

A It can be. Obviously, the economist cannot go before a group of businessmen and talk about microeconomics and macroeconomics—his audience wouldn't understand. Nor should he talk about perfect competition and imperfect competition. To the businessman competition is competition, and he does not care whether it is "perfect" or "imperfect." Your task as an economist is to tell the businessman in simple language what his problem is. This does not mean that you forget your economic theory. You don't spring the theory on a group of businessmen, but you do use it to arrive at your conclusions.

Q *Should the economist's advice reflect the prejudices of his audience?*

A I am glad you asked that question. Many economists have the idea that business is ultraconservative and, when talking before business groups, they should therefore reflect ultraconservative views. This is dead wrong. It is not the job of a consulting economist to tell people what they want to hear, but to tell them what he thinks. Most business groups respect this kind of honesty.

Q *From your extensive experience as a consulting economist, could you give us an example of a case where your opinions ran directly counter to those of your clients?*

A Of course. Perhaps the best example occurred shortly after World War II when some businessmen were urging the immediate repeal of wage and price controls. One day I found myself before a group of 12 top business executives who asked me point blank whether I thought that wage and price controls should be abolished right away. Now, I knew that every one of those gentlemen thought that the answer to that question was "yes." Nevertheless, I told them that I was not in favor of abolishing wage and price controls right now; that, in my opinion, such action would lead to a dangerous wage-price spiral.

Q *How did the group take this?*

A Well, one man went to a friend of mine, a prominent officer at the Hanover Bank, and told him that I was a Communist. My friend (who probably disagreed with me) told him, "That is what we pay Dr. Nadler for. We know that we can count on him to give us an independent view whether we agree with him or not. And that is worth a great deal to us." The business-

man was so impressed that he later came and apologized to me. Ever since, he has been a constant guest at bank luncheons which I have addressed. Of course, this does not mean that he agrees with me now any more than he did 14 years ago.

Q *Businessmen often complain that economists so qualify their answers that it is impossible for them to use their advice in making basic decisions. Do you think this complaint is justified?*

A Yes I do. When businessmen come to a consulting economist with a problem, they don't want an "on-the-one-hand, on-the-other-hand" answer which will leave them more confused than they were to begin with. That is why I have developed the practice of considering the alternative myself and then telling my client that this is my opinion for these specific reasons. In other words, I don't leave the burden of decision to him. I give him my opinion—that is, I tell him what I would do if I were in his position—because that is what I have been hired for. Of course, this does not mean that I do not see the various facets to the problem which might turn out differently.

Factors and conclusions

Q *Would you say that this need to give precise and fast policy recommendations is one of the things which distinguishes the business economist from his academic colleague?*

A Absolutely. Now, I have no inside track to the future. I have no information that the other fellow does not have. I am ready to give my conclusions only after I have taken account of all the factors that I can see, analyze and evaluate. These conclusions are subject to error. After I had worked for the Hanover Bank for about five years, I was called in by a Senior Vice President, as fine a man as ever lived, but hard-boiled—a real banker of the old school. I remember asking him: "How am I doing?" His answer was interesting. "I have watched you carefully," he said, "and you have a batting average of 70 per cent, which is very good. If you had a batting average of 55 per cent, it would still be good. But if you had an average of only 50 per cent, then I don't have to pay you money. I just toss a coin." I'm telling you this story to indicate that you don't always have to be right, but you do have to be right more often than you are wrong.

Q *Let us turn now from what a consulting economist does to a more specific consideration of what one consulting economist, yourself, is telling his clients. You mentioned earlier in the interview that one of your functions is to give advice on the business outlook. Perhaps you could give our readers the benefit of some of the advice you are giving your clients.*

A Fair enough. As you know, there is considerable difference of opinion among economists as to where business as a whole is heading. I never express any opinion for the long run because I believe that such opinions are meaningless. But when people ask my opinion concerning the short-run business outlook (say six to nine months), I tell them that I think business as a whole will move "sideways." It may go down a little, it may go up a little. But I do not see any single force, or group of forces, that will push the economy materially upward, and I don't see any force which will pull the economy downward. The one hedge I must include in the prediction is, of course, in the field of international affairs, where unforeseen events might materially change the picture.

Q *On what specific indicators do you base your prognosis?*

A At present, there are strong forces in the economy and there are weak forces, and these forces are apparently in a kind of equilibrium.

Q *What are the strong forces?*

A First, we can look forward to increased federal, state and local expenditures during this short-run period. Since the government is very big business, increased government expenditures can clearly have a stimulating effect on business activity. And this estimate of increased government expenditures is based upon appropriations that have already been made as well as appropriations that will be made if business declines.

Q *What are some other strong factors in the economy?*

A Employment, on the whole, is satisfactory, although the percentage of unemployed, which stands at almost 6.4 per cent of the nearly 68 million people gainfully employed, is altogether too large. Even so, the economic security of the people is high, and they have money to spend. I think they will spend it on nondurables and services; they always do.

Q *How about money rates?*

A Yes, I think that this is another strong factor in the economy. Money rates are easier and the availability of credit has increased. This should have a stimulating effect on business activity, although it will take some time to make itself felt.

"Neutral" factors

Q *What are some of the weak factors in the economy?*

A The one very weak factor, in my opinion, is the strong likelihood that capital expenditures by corporations will go down. This will probably counteract the stimulating effect of increased government expenditures. Apart from this dampening influence, there are some important "neutral" factors. The automobile industry, for example, expects to sell between 6.5 million and 6.8 million cars this year. I'm not so sure that they can do it. Consumer credit is high, and people don't seem to be viewing the immediate future with such high optimism and therefore are unwilling to incur more debt.

Q *How would you balance these strong and weak factors?*

A This is the way I would put the problem if a

businessman had asked this question and expected a fast and well-reasoned answer. Our economy is today in a transition period. By the end of 1957 the great postwar boom had come to an end. Outstanding demands had been met. At the same time, the productive capacity of the country had increased considerably. The homes that had not been built during the depression and the war had been built during the postwar period. At the same time, the productive capacity of Western Europe was greater than ever before, and American exporters were facing increasing international competition. When, therefore, the 1957 recession set in, it should have been a long and deep one—a real postwar depression.

Q *Instead, it was a rather mild recession. Why?*

A There were a number of reasons. First, the Federal Reserve authorities adopted a policy of relative credit ease; short-term money rates went down to less than one per cent. Second, the federal government unbalanced its budget to the tune of a $12-billion deficit. This government intervention was so massive that for a time it interrupted the decline. But the fact of the matter is that we are still in a transition period.

Steel and oil

Q *How would you explain such specific problems as the current overcapacity in steel and the glut in oil?*

A Let's take steel first. A number of recent developments are depressing steel operations. Steel has lost some of its markets to other products—aluminum, plastics, reinforced concrete, etc. Moreover, one of steel's biggest buyers, the automobile industry, has shifted to compact cars, which require substantially less steel than the conventional size. Thirdly, most manufacturers are still working off top-heavy inventories.

Q *How about the oil situation?*

A At present, there is a world oversupply of oil. This is because the oil companies have spent a tremendous amount of money on oil exploration and have found oil in the most unexpected places. Even so, production has consistently increased every year. There is another aspect to this problem of overcapacity. Suppose an oil-refining company wants a new refinery and envisions a demand for 50,000 barrels a day. Their economist, if he is any good, would obviously not advise them to build a refinery with a capacity of only 50,000 barrels. Rather, he would advise them to build a refinery that could accommodate the expanding demand of four or five years hence. It is cheaper for the company to build a refinery with a 100,000-barrel capacity than to build a second 50,000-barrel refinery five years hence. Thus, any expanding industry tends to overexpand during its period of growth.

Q *But you believe that these special industry problems will resolve themselves in time?*

A Of course. In any case, I do not believe that these special industry problems will be sufficiently serious to affect the over-all business picture.

Q *You do not believe that government should follow a deliberately expansionist policy to increase our rate of economic growth?*

A I do not believe in forced expansion because I fear that such expansion might not lead to the desired results. Of course, this does not mean that I think government should shirk its responsibilities. Government should seek to create a favorable business and investment climate. The economic growth of our nation depends primarily on the ability of private investment to create new goods and services and engage in more research. There is a great deal that government can do to encourage private investment.

Q *What other responsibilities does government have?*

A Government unquestionably has a responsibility to prevent too sharp a decline in business activity and too rapid an increase in unemployment. In such cases, government has the duty to intervene. Since the passage of the Employment Act of 1946, this is, in fact, what it has done. Both the Truman and Eisenhower Administrations intervened in our three postwar recessions, and there is every reason to believe that President Kennedy will do the same thing should there be a recession during his term of office. But this is something very different from directing the economy to achieve specific growth goals. I don't think that such direction will give you the growth you desire. The experience of West Germany, France and England proves that free economies grow faster than directed ones.

The tax burden

Q *In other words, you don't agree with those economists who believe that we are misallocating our resources, and spending too much on private consumption and not enough on public service?*

A No, I do not. If people weren't being taxed so heavily, you might say that they were shunning their social responsibilities as citizens. But as everyone knows, our tax burden is one of the biggest in the world. Now, why should government have the right to tell us what we should do with what we have left over after taxes?

Q *But since none of us like to be taxed, don't you think there is a tendency to neglect those services which apparently can only be financed through tax revenues?*

A This would be true only if the amounts spent on, say, education by federal, state and local governments (and by individuals) were relatively small. But in point of fact total expenditures in education are quite substantial. Of course, this does not necessarily tell us whether we get a dollar's worth of education for every dollar spent. I would say that too much of our expenditure for education goes into swimming pools, sporting facilities and other frills, and too little on real education.

Q *But this is not something that government can do anything about.*

A In the U.S., education has been left to the local

governments and, in the case of higher education, to private institutions as well. And I think that this is how it should be. If the federal government were to control the purse strings of education, I would not be able to talk as freely as this. It would be difficult for me, as a teacher, to express independent views, since anything I said might be taken to reflect the opinions of my employer—in this case, the state.

Q *In other words, you would become a staff economist of the state?*

A Precisely.

Q *Dr. Nadler, your evaluation of the business outlook will obviously be influenced by what the new Kennedy Administration does or does not do. Do you foresee dramatic changes in economic policies as a result of the Democratic victory?*

A No, I do not. Both parties today accept the idea of unbalanced budgets in times of recession. Thirty years ago neither party accepted this principle. When President Roosevelt first ran for election during the depression of 1932, his platform called for a balanced budget. It soon became evident that it was impossible to achieve this objective during the greatest depression this country has ever known, and the New Deal soon abandoned its efforts to do so. The Republicans have had exactly the same experience. Both in 1952 and in 1956 President Eisenhower ran on a platform of government economy and balanced budgets. His cabinet was composed of relatively conservative men who believed in "fiscal responsibility." Yet during the 1958-59 recession this same conservative Administration rolled up a record peacetime budget of $12 billion. And there is little doubt that President Kennedy would do the same thing in a serious recession.

Q *Is there the same agreement on principle regarding such matters as social security, public housing, relief for the aged, regulation of the Stock Exchange, etc.?*

A Yes. On matters of principle there will be little difference between the Eisenhower and Kennedy Administrations.

Q *Well, will there be any changes under the Kennedy Administration?*

A Of course. There will be a difference in emphasis. The Kennedy Administration will put greater emphasis on relief for distressed areas. It will probably be willing to grant more aid to education, and it may move into public housing on a somewhat more extensive scale. But I don't think that you will have any basic innovations—just changes in emphasis.

Q *Do you think that this shift in emphasis is desirable?*

A Well, you can't answer that unless you know how far the Kennedy Administration will go. But I do think that a shift in emphasis is desirable during a period of declining business activity. In fact, I think that if Vice President Nixon had been elected, he would probably have moved in the same direction.

Q *So you would not advise your clients to be fearful of the economic consequences of the election?*

A Of course not. The Kennedy Administration will certainly not be hostile to business. It knows that no segment of the community prospers if business is bad. If the steel industry is operating at 50 per cent of capacity, many steelworkers are unemployed, and many communities become distressed areas.

Q *One of the things that worries some experts is the short-run consequences of automation. Do you think that finding jobs for workers displaced by automation is going to be a problem?*

A Automation invariably leads to temporary unemployment because of the introduction of labor-saving devices. You will find that the number of so-called production workers—the people who stand behind the machines—has decreased in importance, while the number of nonproduction workers has increased. Thus, if you look at one particular industry, you will find that automation often is a problem. But if you look at the economy as a whole, you will find that employment in the service industries has increased substantially. We are, in fact, becoming a service economy.

Unemployment statistics

Q *Do you think that the relatively high rate of unemployment right now partly reflects difficulties we are encountering in adjusting our labor supply to the demand?*

A Absolutely. Part of the problem is that we really do not have accurate unemployment statistics. In fact, I sometimes wonder whether the unemployment situation is really as bad as the figures make out. On the other hand, there is no question but that the percentage of unemployed is altogether too high, and that the problems created by automation are going to be with us for a long time.

Q *But this does not mean that we should stop automating.*

A Certainly not. The proportion of the U.S. population which consumes without producing—older people and youngsters—is constantly increasing. Thus, without automation we could not maintain and increase our standard of living.

Q *Let us turn for a moment to the foreign situation. What do you think is basically behind the rather active speculation in gold of recent months?*

A The outlines of the problem are really very simple. For the last three years the United States has averaged an annual deficit of more than $3 billion in its international balance of payments. That is too large a deficit even for the strongest country in the world. As a result of this unfavorable balance, foreigners have accumulated in this country about $20 billion of short-term dollar assets that can be readily converted into gold or other currencies. But the monetary stock of gold in the country is less than $18 billion—and $11.5 billion of this stock must be kept as legal reserves. That is why a

great many people, especially in Europe, have come to the conclusion that the dollar will have to be devalued. And if the dollar is to be devalued, your best bet is to buy gold. Foreign governments and central banks can buy gold in the United States at a fixed price of $35 an ounce, plus handling charges. But individuals who want to buy gold have to buy it on the London market. And in recent months the London gold market has been very active.

Balance of payments

Q *Are the speculators right? Do you believe that the dollar will be devalued?*

A No, I do not think that the dollar will be devalued since there are many other ways in which the United States can rectify the balance of payments situation very rapidly.

Q *Could you elaborate?*

A Most of the measures I have in mind have already been initiated by the Eisenhower Administration. For example, the Administration has already ordered a reduction in the number of dependents of overseas service personnel. The cost of maintaining these dependents and civilian employees runs into hundreds of millions of dollars, and this certainly does not help our balance of payments. We are also asking those nations who have favorable balance of payments—such as Great Britain, Germany, France, Italy and Japan—to shoulder a larger share of defense and foreign aid burden. This could reduce the U.S. overseas commitments which constitute such a heavy drain on our dollar supply.

Q *But what happens if these countries refuse to assume this burden? What do we do then?*

A If our allies refuse to assume part of the defense and of the foreign aid burden, there are a number of possible courses of action open to us. First, we could cut down on our troop commitments overseas and tell our allies to carry on their own defense. We could curtail or eliminate altogether our military installations, though I do not think for a moment that we can curtail our economic aid since this goes to the weak and underdeveloped nations. We could cut down on the amount of money American tourists may spend abroad by reducing the amount of duty-free goods that can be brought in by the American tourist from $500 to, say, $200. Finally, we could impose restrictions on the exportation of American capital abroad. Now, I don't think that these measures are desirable, and I certainly would not want to see restrictions on American investment or on American tourists.

Q *But you do think that the time has come when we should do something about military expenditures.*

A Yes, I do. Once it becomes a choice between maintaining the integrity of the dollar and continuing our massive overseas expenditures—and this is the situation today—the time has clearly come for us to reduce these defense commitments. Our allies are currently enjoying unprecedented economic prosperity; they can afford to spend more on defense. While the United States currently spends nearly 10 per cent of its gross national product on defense, Great Britain spends 7.5 per cent, West Germany four per cent and Japan only one per cent. I think it is time that the other nations realize that defense is not only an American problem.

Q *What else could we do?*

A Well, we could increase the number of tourists coming to the United States simply by eliminating the tourist visa. In order to land in England all you need is a passport. Once you have that you are treated like anyone else. But getting an American visa is no easy matter, and many foreigners do not think it is worth the trouble.

Q *Do you think that American goods are being priced out of foreign markets? In particular, do you feel that the emergence of the European Common Market, and a tougher competition in general, is going to affect adversly our international trade position?*

A No, I believe that the Common Market is both an opportunity and a challenge to the U.S. The challenge comes from the increased competition from Western Europe which is copying our techniques of large-scale mass production. Europeans are also utilizing labor-saving devices and, at present, their labor costs are lower than ours. But wages in Western Europe are increasing faster than in the United States. This is where our opportunity exists. As the standard of living goes up in Western Europe, their people will want many of the goods which at present are produced only in the United States. From my own experience, I would say that Europe is becoming more and more American. In many respects, therefore, they still have to do many of the things we have already done. To take but one example, think of the millions of dollars that will have to be spent to improve their roads—something that we have already done to a large extent.

Q *On the basis of this evaluation, how would you advise your clients? What does all this mean to them?*

A It means: be as efficient as you can. Increase your productivity. Develop your market research as fast as you can. The increase in living standards is creating vast new markets.

Q *Thank you, Dr. Nadler.* ■

The Future of the Fed

by JAMES TOBIN

■ POWER AND RESPONSIBILITY for economic policy in the United States are divided among the President, the Congress and the independent Federal Reserve System, the nation's central bank and monetary authority. The Kennedy Administration may find itself in sharp conflict with the Federal Reserve, even to the point where Congress must choose sides. The possible lines of conflict are plain enough to see.

A modern government must have an economic policy—a strategy for dealing with the business cycle, the balance of payments, the level of employment and output, and most recently, the rate of economic growth. Indeed, a political party is judged by the electorate on the performance of the economy during its tenure of office.

Monetary control is a major ingredient in any coherent strategy of national economic management. Western parliamentary democracies have therefore absorbed their central banks into the executive or at least made them responsible to the government. In the United States, however, the problem of defining the status of the central bank has not been solved.

This problem could not have been anticipated by the founders of the Federal Reserve System. Their innovation—which was an advance over England and other countries in 1914—was to place the regulation of the currency in a clearly governmental agency, a system of public central banks. At that time it was not necessary to spell out the relations of the Federal Reserve to the other organs of government concerned with economic policy.

In 1933 the federal government began to assume responsibility for the general economic health of the country. From then until 1946 the economic circumstances of depression and war obviously compelled monetary policies consistent with the major economic objectives and strategies of the Executive.

The question of the independence of the Federal Reserve arose between 1946 and 1951. During this period the Federal Reserve became convinced that restraint of inflationary demand by monetary means—the time-honored function of the central bank in defending the value of the currency—was impossible unless the Treasury changed its low interest rate policy.

The Treasury-Federal Reserve Accord of 1951 freed the Federal Reserve from any obligation to support Treasury issues at par. The Fed's victory was important, but it could scarcely have been achieved without strong Congressional help. Economic policy is made in Congress as well as in the White House, and in 1951 that fact gained the Federal Reserve independence of Executive domination.

Fourth branch of government?

Since 1953 the Board of Governors of the Federal Reserve and the Administration have been in uncoerced and enthusiastic agreement on the broad lines of policy. Between them no issues of independence, authority and responsibility have arisen.

On the other hand, the Joint Economic Committee of Congress, which did so much to rescue the Federal Reserve from President Truman and Secretary of the Treasury Snyder, has become increasingly critical of the way the Board has used its freedom. The Committee majority tried without success to push the Federal Reserve and the Administration toward less restrictive monetary policies in the interests of speeding economic expansion and lowering the costs of servicing the national debt.

Once again the "independence" of the Federal Reserve became a heated issue, a symbol of irresponsible power to some, and to others the last citadel protecting the dollar and the country from disaster. But this time the issue was independence from Congressional pressure rather than from the Executive. Under the Kennedy Administration the Federal Reserve may, for the first time, face opposition both in Congress and in the White House and Treasury.

Contrary to the impression sometimes conveyed by frantic financial editorialists, the Federal Reserve System is not a fourth branch of government. Even the Supreme Court is said to read the election returns, and the Fed cannot begin to claim the independence of the judiciary. As a distinguished and sympathetic servant and historian of the Federal Reserve, E. A. Goldenweiser, has said, "When the Board was created and organized, it was frequently referred to as the Supreme Court of Finance. Nothing could be less appropriate than this designation. The Board is not supreme, but subordinate to Congress and in some respects to the Administration."

The Board of Governors of the Federal Reserve System consists of seven governors, one appointed by the President every two years for a term of 14 years. From these seven the President appoints a chairman for a term of four years. This term does not coincide with the Presidential term; evidently from accident rather than design, it begins almost two years earlier. The chairman, however, traditionally offers a new President his resignation as chairman.

Even if William McChesney Martin resigns as Chairman, and President Kennedy accepts his resignation, the new President will have to select his successor from the membership of the present Board. Not until 1962 will the President make a scheduled new appointment to the Board. These circumstances effectively prevent the President from controlling a Board that is unwilling to follow his leadership.

But, faced with a Board which does not cooperate with the general economic policy of his Administration, the President can ask the aid

of Congress. The Federal Reserve is a creation of Congress. Congress could direct the Board to coordinate its policies with those of the President; Congress could establish a coordinating committee for economic policy similar to the National Security Council. Congress might, as in 1935, reconsider the whole constitution of the System.

The present Board of Governors may prefer to acquiesce in *de facto* arrangements for the coordination of economic policy under Presidential direction, rather than to force the President and Congress to spell out these arrangements in formal legislation. Or will the present leadership of the Federal Reserve stand fast on what they regard as essential principles of political economy, hoping that conservatives of both parties in Congress and public opinion will sustain them?

The new Administration and the old Board of Governors may find themselves at odds on three interrelated strategic issues of economic policy.

The first is the proper target of price stabilization policy. Should monetary and fiscal policy aim at an unemployment rate of three per cent, or of five per cent, or at whatever level of unemployment is consistent with price stability?

The second issue concerns the roles assigned to monetary instruments, fiscal measures and direct controls in achieving price stabilization. For example, how much of the job of restraining aggregate demand should be assumed by high interest rates and tight credit, and how much by high taxes and a budgetary surplus?

The third issue is the strategy of debt management. To what extent is minimization of the Treasury's outlays for interest on the national debt a legitimate consideration in monetary policy and debt management?

Consider first the question of unemployment. Since 1953 the unemployment rate has averaged over five per cent. This is not because the Administration and the Federal Reserve lacked the knowledge and power to make the average less. The record reflects, instead, a conscious choice of policy. The monetary brakes were applied when unemployment tended to fall below five per cent; they were only slowly released even when unemployment stood at more than five per cent.

Neither the Federal Reserve nor the Eisenhower Administration liked unemployment for its own sake, but they liked inflation even less. In order to retard the upward creep of the price level, they kept aggregate demand from expanding enough to achieve higher levels of employment and production.

In spite of these efforts, the price level crept upward at a rate of about one and one-half per cent per year.

The authors of the policy were probably right in their conviction that prices would have risen still faster if aggregate demand had been held under less restraint. Unemployment and slackness of demand are defenses against wage and price increases; to operate the economy at a higher proportion of its capacity is to weaken these defenses.

This choice—between higher employment, greater production and faster inflation on the one hand, and more unemployment, greater unutilized capacity and a slower rate of price increase on the other—is a cruel one. No one knows the terms of the choice. If, on the average, five per cent unemployment is associated with a one and one-half per cent per annum rate of price increase, does this mean that four per cent unemployment is to be associated with an annual inflation of two, or four or 10 per cent per year?

We have no relevant experience from which to judge. Over the period 1947-53, unemployment averaged about four per cent, and the Consumer Price Index increased at an average annual rate of slightly over three per cent. But most of the price advance occurred in 1947, as a reaction to wartime excess liquidity and price controls, and in 1950 as a result of the panic buying triggered by the Korean war.

Is additional employment and production worth a faster inflationary creep? A three or four per cent unemployment policy would mean not only more jobs; it would also add $15 billion to $25 billion per year to national production. Is that worth a step-up in the rate of price increase to three per cent, five per cent, or 10 per cent? Clearly the answer may vary, depending on the terms of the choice. But whatever these terms are, the answer is necessarily a value judgment—which involves weighing the advantages of employment and output against the advantages of price stability.

Choices and values

Reasonable men of good intentions can and do differ both on what the terms of the choice actually are and on the values that should guide the choice. There is no uniquely "correct" target of economic stabilization policy, and it is an illusion to believe that there is. The Federal Reserve, supported by the Eisenhower Administration, had one view. The Democratic majority of the Joint Economic Committee felt that the sights were set at too low a level of employment and production. The President-elect has associated himself with this criticism.

Neither side is right, and neither is wrong. This is not simply a technical matter. The choice is inevitably and properly a political one. Administrations are judged, votes are sought—and won and lost—according to the economic performance of the nation as measured by the record of employment, production and prices. A new government

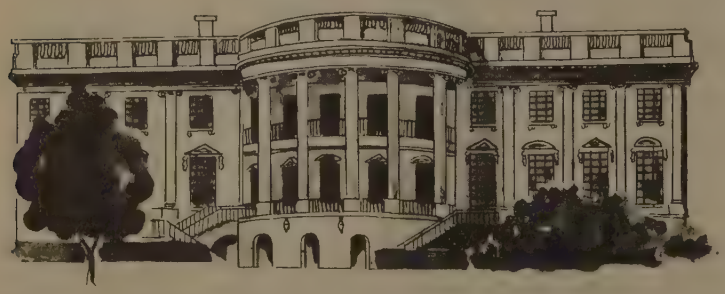
has the right and the duty to make and to carry out its own judgment on the strategic and difficult choice between "fuller" employment and slower inflation.

The Federal Reserve has tended to take the view that decisions on monetary control are technical rather than political, that there is a single correct monetary policy—namely the course which, within the limits of human error, the Fed pursues. Federal Reserve spokesmen contend that the inevitable consequence of a deviation from their course of monetary restraint would be an eventual collapse which would more than offset temporary gains in employment and output.

Convictions and growth

The economic logic of this prediction is, to say the least, obscure; to most analysts it seems that it would come true only if the Fed itself lost nerve and slammed on the brakes too hard when attempting to slow down inflation. Whatever its logic, it is expounded and believed with ideological fervor inside and outside the Federal Reserve System.

This conviction may lead the Board of Governors to resist and to frustrate any effort by the Kennedy Administration to gear the federal budget and other instruments of



economic policy to higher levels of employment and production.

The second possible conflict concerns economic growth. The Kennedy Administration comes to office committed to accelerating the nation's economic growth. The basic requirement of a growth policy is a shift in the composition of national output, so that a larger proportion goes into uses that enlarge future productive capacity—private and public investment, education and research. The other side of this coin is that personal consumption must take a smaller share of the national product.

Easy money, tight budgets

The federal government can engineer such a shift by following a relatively "easy" monetary policy—using low interest rates and abundant credit to encourage investment by business firms and by state and local governments—while, at the same time, pursuing a tight fiscal policy which restrains consumer demand through taxes on incomes and consumption. The heavy reliance placed on monetary restraint over the past eight years is one of the reasons that, relative to GNP, consumption has grown while investment has fallen.

The objective should be to combine tighter fiscal controls and easier monetary policies in the right proportions, so that over-all demand is just enough to keep the economy at the desired level of employment—for instance, at three per cent unemployment. The right combination would meet both the employment and the growth objectives of the government.

A policy of this kind does not imply inflexibly "easy" money—a rigid pattern of low interest rates such as hampered government stabilization policy from 1946 to 1951. Monetary control would still have to assume the main burden of anticipating and offsetting the week-to-week, month-to-month swings in aggregate demand. Interest rates and the availability of credit would still fluctuate, but, on the average, interest rates would be lower, and credit would be more plentiful. At the peak of a boom, a greater share of the task of preventing excess inflationary demand would be assumed by taxation and fiscal surplus.

Would the Federal Reserve accept a somewhat lesser role in the battle against inflation on the understanding that fiscal restraint would assume a larger role? Pronouncements by the Federal Reserve give little recognition to the fact that monetary policy and fiscal policy are, at least within broad limits, substitutes rather than complements. The Federal Reserve has carefully nurtured the impression that tight money is a *necessary* requirement of anti-inflationary policy and that a balanced budget or a large budgetary surplus is, too.

"Correct" policy

The Federal Reserve appears to believe that the same uniquely correct policy that is best for employment and price stability is also best for growth. A different policy might lead to faster growth for a time, but, according to Chairman Martin, "Efforts to maintain an artificial level of interest rates, either too high or too low, can only lead to cumulative financial disequilibrium, first distorting and then disrupting healthy economic growth."

Maintenance of a stable value of the dollar is, in Martin's view, the greatest contribution the central bank can make to economic growth. He has said, "It is only in an environment of confidence in such stability that savings will accumulate and credit will flow in an orderly way and in expanding volume." Like some other positions of the Board, this proposition relies more on a general faith that virtue pays than on careful empirical and theoretical analysis.

A growth-oriented policy might also call for direct controls to prevent easy money from expanding consumer credit. The Federal Reserve has administered selective controls of consumer credit during three periods in the past: 1941-47, 1948-49 and 1950-51. But the Board has increasingly taken an ideological position against selective controls, arguing that they are neither necessary nor appropriate instruments in a free peacetime economy.

The third possible source of conflict between the new Administra-

tion and the Fed concerns debt management and interest costs. From 1946 to 1951 all possibility of economic stabilization through monetary control was sacrificed to the objectives of minimizing Treasury interest outlays and protecting government bondholders against depreciation. These objectives had wholly undeserved priority in the scale of values of President Truman and Secretary of the Treasury Snyder.

The reaction to this Babylonian captivity of the Federal Reserve has been extreme, especially since 1953 when a new team sympathetic to the Federal Reserve took over the Treasury. In the Truman-Snyder era the effort to keep monetary control and debt management cheap destroyed their effectiveness. In the era of Eisenhower, Martin, Humphrey and Anderson, the operative belief has been, or often seemed to be, that monetary control and debt management cannot be effective unless they are expensive, and the more costly the more effective.

The debt problem

In the Truman-Snyder period the Federal Reserve subordinated all other considerations to assuring the Treasury a ready market for its securities at the established low rates. In the Eisenhower Administration the belief that the Treasury must pay market interest rates with no help from the Federal Reserve has been carried so far that the federal government denies itself underwriting services that no private borrower would do without.

Economizing on federal debt interest charges is not a terribly important policy objective. It does not rank in the same class with growth, full employment and inflation control. After all, interest outlays are internal transfers, from taxpayers to bondholders, and involve no draft on the productive resources of the nation. Nevertheless, such transfers involve inefficiencies and inequities, and the $3.5-billion increase in interest outlays since 1952 is not a trivial item in the federal budget. Surely it is reasonable to expect federal officials to keep interest costs down when they can do so without compromising other important objectives.

The Federal Reserve and the Humphrey-Anderson Treasury have practiced and advocated policies that add to the taxpayers' costs without adding to the efficacy of monetary policy and debt management for economic stabilization.

Two important examples will make the point. The first is Federal Reserve policy concerning reserve requirements. Reduction of bank reserve requirements is one way of giving the economy a monetary stimulus. Alternative ways are open-market purchase of government securities and reduction of the Federal Reserve discount rate.

Reduction of reserve requirements is the more expensive way, from the Treasury's point of view. Reserve requirements in effect compel banks to lend to the federal government at zero interest. When reserve requirements are reduced, more of the federal debt has to be placed at interest. Since 1951, whenever the economy has clearly needed monetary stimulus, requirements have been lowered. But when monetary restraint was called for, the Fed has sold securities instead of raising reserve requirements.

The second example is management of the maturity structure of the debt. The Treasury, seconded by the Federal Reserve, has favored contracyclical variation of the maturity structure, issuing long-term obligations in place of more liquid short-term ones to fight inflation, and also issuing shorts in place of longs to combat recession.

As the Joint Economic Committee pointed out, this can be an expensive policy to the government; borrowing long in boom times saddles the Treasury with peak interest rates for years to come. The Committee asked that the Treasury, instead, borrow long when interest rates are low (in recessions) and confine itself to short issues when interest rates are high (in boom times), leaving economic stabilization to the Federal Reserve. The Committee is correct that there are normally enough degrees of freedom in monetary control and debt management so that economy of interest cost can be sought without sacrificing stabilization objectives.

The most efficient and rational organization of federal debt operations would be to concentrate them in the Federal Reserve, giving the Fed a mandate to seek, through security operations and its other instruments, as much economy of interest outlays to the government as is consistent with the task of monetary stabilization.

International effects

The balance of payments deficit and the gold outflow cast long shadows over the domestic economic program of the incoming Administration. The dollar crisis has evoked, from those who support the monetary and employment policies of 1953-60, the claim that events now prove these policies to be indispensable. But the dollar has come to its present pass under those very policies, administered by a conservative Administration and an independent central bank, both dedicated above all to sound finance.

The solution lies in the sphere of international monetary agreements and mechanics rather than in the domestic domains of the Federal Reserve and the Treasury. To achieve it is the first economic task of the new Administration. Otherwise we shall not be free to follow the conservative monetary and economic

policies of the past decade, much less to embark on new domestic economic programs.

After the United States regains the freedom of action that the richest and most productive nation in the world should and must have, the question of the role of the Federal Reserve in the making and execution of national economic policy will be sharper and clearer. The wisdom, experience and technical resources of the Federal Reserve are needed in the formulation and execution of a coherent economic policy, no less for a liberal government than for a conservative regime. It will be better for all concerned if the Federal Reserve Board, the Administration and the Congress can make a pragmatic adjustment to accommodate monetary policy to the general economic program of the government than if a bitter legislative battle must be joined over formal proposals to redefine the status of the Federal Reserve. ■

Russia's gold hoard

A WEAPON IN THE COLD WAR?

by MAX CARASSO

■ AN OLD STORY tells of two treasure-hunting friends who made a solemn and iron-bound pact before starting off for a remote country. They affirmed that they would never, under any circumstances, quarrel over their respective shares. They wrote down every possible source of friction they could think of, and agreed that no one of these, nor any combination of them, was important enough to jeopardize their safe return to civilization with their newly found wealth.

Yet the end of the story found them both dying on a lonely beach, each the victim of the other's murderous hate. In all their concern with the known pitfalls attending success, they had forgotten to provide for the concomitants of failure, hunger, boredom and mutual recriminations.

In the furor over losses in the United States' gold reserve, recently punctuated by gold price gyrations in the London market, the Western world may similarly be failing to take into account the most potentially dangerous situation of all. The general preoccupation with these losses of accumulated gold has seldom inspired anyone to ask a more significant question: Why is the Soviet Union hoarding gold?

Do the devious and often successful plans of the Kremlin include a scheme to destroy the value of the gold which we are so jealously guarding or its dependability as the balance wheel of our economic system? There is good ground for such a suspicion, since there is no logical reason, in Communist theory, for Russia to hoard gold.

The Soviet gold hoard has been mounting for several years. Though Russia does not reveal figures of gold production, authorities agree that the U.S.S.R. is undoubtedly the world's second largest gold producer, surpassed only by South Africa.

Yet in 1957 only $250 million worth of Russian gold is known to have been sold in the London market. (It is estimated that twice that amount is produced annually in the U.S.S.R.) In succeeding years even less Russian gold has been sold in the market. Today Russian gold stocks are estimated to be worth between $7 billion and $8 billion; some authorities place the figure as high as $10 billion. Thus, the Russian gold holding is second only to that of the United States.

What does the Soviet Union need this gold for? In Communist theory, gold is nothing but a convenient medium of exchange in foreign trade, although a substantial proportion of Soviet trade is conducted through direct barter arrangements. In capitalist countries gold also serves as a standard and a store of value. But in Communist countries the government, not the market, establishes prices and sets its own standards. Nor does gold have a role as a store of value, since the Russian government does not need gold to support its circulating currency or for any other purpose within the Russian economic system. In fact, Communist economic theory looks upon gold as completely sterile and, as far as the Communist economy is concerned, as just about the most useless thing in existence.

Yet the fact that the Russians are hoarding gold is indisputable and, during 1958, became too obvious to hide. In apparent contradiction to its own economic principles, the Soviet government exported (and even dumped) tin, aluminum, oil and other valuable materials important to industrial growth, rather than disgorge any of its gold. No one appears to have produced a satisfactory explanation for this phenomenon.

Some economists take a naive approach to the problem. For example, a recent article in the *Lloyd Bank Review* ascribes the Soviet hoarding to "an old-fashioned spirit, possibly because Karl Marx lived and wrote in the heyday of the gold standard."

In other words, we are asked to believe that the Soviet government

would rather hoard sterile gold than use it—this at a time when the U.S.S.R. is in constant need of vast quantities of capital for its drive to catch up with the U.S. in industrial production, for aiding the industrialization of Red China and the satellite countries, as well as for aiding the development of uncommitted countries in which it places political hopes. We are asked to believe that the U.S.S.R., whose vast investments in scientific research and technology give birth to Sputniks and Lunicks, is hoarding gold simply because it has an old-fashioned outlook.

This is most unlikely. And when dealing with Soviet problems, if we jump to unlikely conclusions, we are on very dangerous ground. The Soviets surprised us before with a space satellite and a moon satellite. If we persist in our complacency, they could surprise us with a Soviet world.

A new coup?

We can, of course, depend on our intelligence services to alert us to direct threats of a military nature. But many recent successes of the Soviet government in extending its influence—as in the Middle East, in Africa and, most obviously, in Cuba —have involved no direct military threat to us and came about while our intelligence services had to stand by helplessly. It is therefore only reasonable to wonder if the Soviets are planning some new coup in which the use of gold will play a part.

It would be rather naive on our part to renew the "Russian Gold" accusations thrown at Communists and socialists in days gone by. Even if the Russian government intended to finance large-scale subversion, it would not do so with gold, since any payments involving large gold movements could easily be traced and, consequently, blocked.

Russia can most effectively give financial support to revolutionary action by gradually acquiring and using the currencies of the countries involved or by piling up bank deposits in those countries in the names of secret Soviet agents. Quite possibly this is going on right now. It is even possible that Soviet agents may possess key blocks of stock in strategic American companies. At any rate, it is obvious that the hoarding of gold would be entirely unnecessary in this connection.

What other possible motives could the Soviet government have for hoarding gold?

We find, as reported by some very acute scientific observers, that many Soviet mathematicians are engrossed in probability theory. Now, probability theory, as we can well surmise, has very little place in a planned economy like the Soviet Union, where economic decisions do not depend (as they largely do in capitalist countries) on informed guesses as to future business conditions. In Russia the desired conditions are blueprinted in advance and economic events are made to occur with those desired conditions in view.

The practical technique for this purpose is not probability theory, but input-output analysis. By the use of input-output (interindustry) analysis, the effects of any industrial change upon other segments of the economy can be calculated in advance with a fair degree of accuracy. We may be certain that the U.S.S.R., with the aid of large-scale electronic computers, will be making full use of this technique before too long.

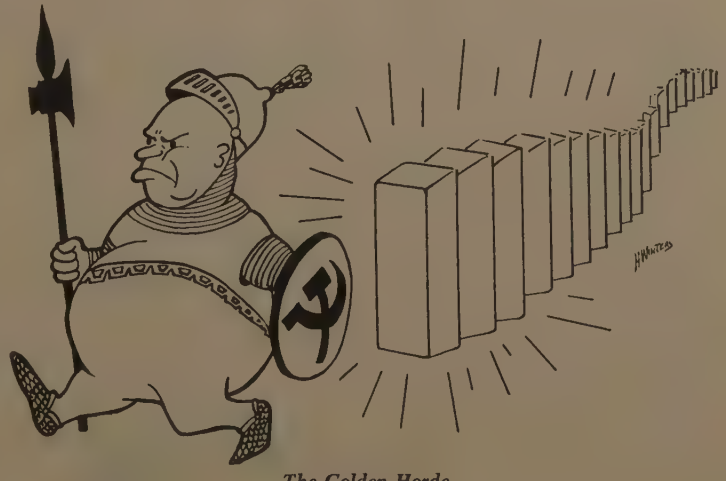
Therefore it is most likely that the Soviet experts who are studying probability are primarily concerned with events *outside* of Russia, Red China and the Soviet satellites. In other words, they are interested in forecasting developments in the free world. If economic events constitute an important area of this interest, does the Russian gold hoard have any special significance to the West? This writer is convinced that it has —a most frightening significance.

For example, the Russian stockpile may have been built up to hang over us as a threat in case we should ever consider devaluating the dollar. Because American goods are being priced out of world markets, the U.S. dollar, whose purchasing power has been greatly reduced by internal inflation, is now grossly overpriced relative to foreign currencies. Countries highly dependent on our products find it increasingly difficult to buy them. Gold instead of goods is leaving our shores because, in the words of the *British Mining Journal*, "gold at $35 an ounce has become the biggest bargain in the world."

Climate of pressure

Early in 1958, for the first time in several years, the price of gold in the London market rose above the U.S. Treasury's *selling* price of $35.0875 per ounce; since then it has fallen below this level for only two brief periods. In this climate of constant upward pressure, speculative outbreaks such as we have witnessed in the latter part of 1960 are readily triggered by tensions, by rumors, and by political hopes and fears.

In the opinion of many reputable economists, raising the dollar price of gold would give business a badly



The Golden Horde

needed shot in the arm. It would also benefit the depressed U.S. gold-mining industry, and relieve such countries as Australia and Canada, good customers and allies of the U.S., from the burden of subsidizing their gold-mining operations.

In addition, a devaluation of the dollar would have beneficial effects elsewhere. The value of other nations' gold reserves would be increased, thereby making their currencies more secure against unexpected drains. With cheaper dollars our European allies would be able to increase their purchases of U.S. goods; this would, in turn, increase their own sales to the U.S. Most of the underdeveloped countries would be able to buy larger quantities of the industrial goods they badly need, in exchange for their exports of raw material.

In short, devaluating the dollar might, in the opinion of these economists, relegate the current fear of depression to a fairly distant future. Of course, they completely ignore the inflationary consequences of such devaluation on the U.S. economy. But the fact remains that, whether or not we agree with this opinion, the U.S.S.R. now holds a club over our heads to inhibit our freedom of choice.

If we devalue the dollar, we will be making the Soviet Union a gift of $200 million for every single dollar by which we raise the price of gold. If we raise the gold price to $50 an ounce, we will be increasing the value of the Russian gold hoard by $3 billion, and it is well to remember that this is only a minimum estimate. We do not know what the size of the hoard really is.

Ugly choice

Moreover, if, after a dollar devaluation, the U.S.S.R. should choose to dump any substantial portion of its gold hoard on the market, the U.S. would be faced with an ugly choice. If we refused to buy, and allowed the London free market to operate without dollar support, the resulting drop in the price of gold and in the value of all the nations' gold reserves would be likely to set off a world-wide panic. The world came close to such a panic in the early part of 1937, simply on the basis of persistent rumors that the U.S. was planning either to lower the price it would pay for gold or limit the free import of gold.

On the other hand, if we bought the Soviet gold, the U.S.S.R. would not only make a handsome profit, but would score a tremendous gain in prestige throughout the world by having outmaneuvered the United States.

Consider another possibility. What would happen if the U.S.S.R. decided to dump its gold even in the face of a constant dollar? We may be sure that they would not choose the present moment for this. They would bide their time until signs of a business recession in the non-Communist world were again evident. By delivering the blow then they would reduce the value of all gold reserves and make gold, not goods, the best bargain in *every* currency. This would completely disorganize trade outside the Communist orbit.

Or the Soviet plan may be to hoard gold patiently, await a serious free world depression, and then buy up raw materials and other goods at bargain prices, making political gains everywhere. In the process, trade and gold would be used to gain political concessions, shore up friendly governments, subvert unfriendly ones and incite hatred against the United States—whose economic policies would be blamed for the world-wide depression.

Does this exhaust the possible gamut of threats presented by the Soviet gold hoard? The answer is no, but some of the possibilities are too fantastic for serious consideration in the absence of concrete evidence.

For example, the price of silver has held steady in the last five years, after increasing fairly rapidly during the preceding six. Soviet statistics on silver are almost as hard to come by as those on gold, but it is interesting to note that in 1955 a jump in the price of silver in New York —of seven cents per troy ounce—coincided with reports of heavy Russian buying of Chinese silver.

What caused these purchases? According to the *Intelligence Digest* of London, the silver was wanted for the production of a new cold-resistant battery for vehicles operating in arctic regions and for use in the air intake of tanks built to operate in areas affected by atomic radiation.

Similar progress in the industrial use of silver has been made outside the Soviet Union; more silver is now used in industry than in the arts. High cost per ounce presents no barrier in these days of defense priorities. Cadmium at $1.50 per pound competes with zinc at 11 cents for many uses. Selenium, at $7 per pound, remains in Group I of the national stockpile list of critical and strategic materials. Platinum at $75 an ounce is used as a catalyst in petroleum refining, and common silicon, refined to top semiconductor grade, finds industrial takers at $750 a pound.

Is it possible, then, that the Russians are not "hoarding" gold at all, but have found some important, secret, industrial use for it even at its high price? Curious news items pop up from time to time to keep us from dismissing this possibility. For example, a novel gold-cadmium alloy has been developed which bends and snaps like rubber. Satellite shells are gold-plated because of gold's high reflectivity. A new gold-plating process will not only be useful in protecting many missile components, but may economically protect many common objects against rust.

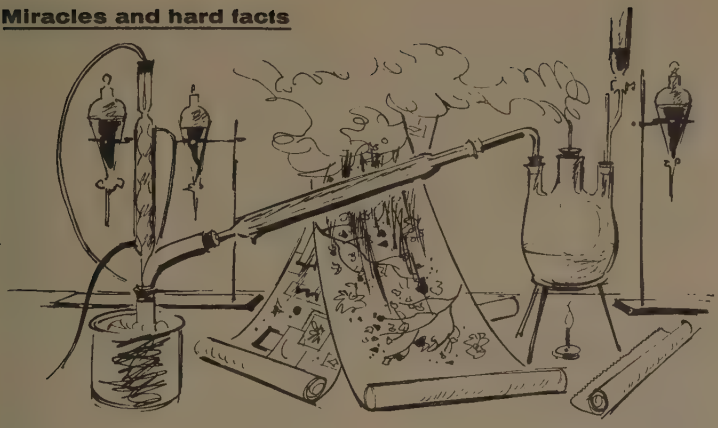
Or can it be that the whole gold hoard is nothing but an elaborate, well-publicized red herring? Have Soviet scientists found a practical way to transmute other elements into gold, and is the "gold hoard" just a way of distracting our attention while they plan the complete destruction of our economic system? ■

THE WORLD'S GOLD

South Africa is the world's largest gold producer with an output worth over $700 million a year. All authorities agree that the Soviet Union is the next largest producer; though exact output is not known, estimates vary around $500 million a year. Other leading producers: Canada, $157 million; U.S., $57 million; Australia, $38 million; Ghana, $32 million.

On the other hand, the U.S. has the largest stock of gold—around $18 billion. Next comes the Soviet Union with an unknown amount, estimated at around $8 billion. Britain and West Germany each has around $3 billion.

Miracles and hard facts



Synthetics Are for Real

by VICTOR LEBOW

■ FROM A NUMBER OF VIEWPOINTS, the technological revolution wrought with the so-called miracle fibers during the past decade deserves a closer examination than it has, as yet, been accorded.

Because the consumer, the retailer and the manufacturer of apparel are all concerned with the end product rather than with the yarns, the extent of this massive postwar revolution has not been fully appreciated. In part, this lack of awareness has been due to the relative ease with which the new fibers have been introduced. Particularly has this been possible because of the role played by basic producers of man-made fibers in speeding the acceptance of their materials.

What Du Pont, Chemstrand, Dow, Corning Glass and other companies have done to build a market for products using their materials resembles closely what the aluminum producers are doing to win acceptance of their metal vis-à-vis steel in cans, building materials, storm windows, automobile engine blocks and the like; or what the plastics manufacturers have accomplished in converting the consumer to the use of their products in shoes, automobile upholstery and seat covers, shower curtains, and a host of other applications. The industrial giants are now providing the beanstalk upon which Jack-the-consumer is climbing to new heights of consumption.

Between 1937 and 1958 the consumption of man-made fibers rose from 334 million to 1,648,000,000 pounds a year, an increase of almost 500 per cent. In the same period the consumption of natural fibers, particularly wool and cotton, went up by only 25 per cent—from 3,733,000 to 4,627,000,000 pounds, according to *Textile Organon*, the authoritative publication in this field. To put it another way, in 1937, 8.2 per cent of the total fiber consumption, in terms of end product, was in man-made fibers, while by 1958 it had mounted to 26.3 per cent.

When one recalls the vicissitudes of rayon and the long years during which it bore the onus of something less than respectability, the rapidity with which the postwar market has taken to new synthetics is quite amazing. To understand how and why this has happened, it might be useful to review the prewar situation.

By the 1930s both acetate and viscose rayon had won considerable acceptance as textile fibers, principally for fabrics made entirely of these products—women's dresses and underwear, hosiery, upholstery materials. Most of the rayon, however, was used in low-priced, "low end" products. During these years, too, silk had fallen in price and had become the principal fiber in women's hoisery, and important in women's dresses and lingerie as well.

Then came nylon!

Never before had any textile fiber made its appearance with such publicity and acclaim. Nylon's first application was restricted to the product with the highest rate of consumption in the apparel field—women's full-fashioned hosiery. The mills could not get enough of the new yarn to begin to satisfy the demand. Women discovered that nylon stockings wore far better than silk, that they dried more quickly and had more elasticity. True, the first nylon stockings were made of 30 and 40 denier yarns which are today considered heavy "service" weights. But in 1939 they were the prized possession of every woman who had been able to achieve ownership of a pair. Many women were to boast that their prewar stock of nylons lasted them through the war years.

When the United States entered the war, nylon was withdrawn for military uses—parachutes, tow ropes for gliders, and other applications. Silk was appropriated by federal order, and every bale in inventory and unopened at the mills was bought by the government at a fixed price. Rayon remained in good supply, but was accepted as a substitute, reluctantly indeed, in such items as hosiery. The Offices of Price Administration and Civilian Supply dictated the cotton and wool production for consumer use. The hunger for the miracle fiber, nylon, which had made a so brief, tantalizing and dramatic appearance, grew as the war came to its close.

When nylon again became available, there was no question of its acceptance in women's hosiery. With its prestige and desirability already confirmed, manufacturers plunged into making men's nylon dress shirts, underwear, socks and a multitude of other products. Many of these, it was soon discovered by the consumer, were far from satisfactory. Nylon has practically no absorption and

can be hot and uncomfortable. Difficulties arose in sewing nylon garments, which tended to pucker at the seams. These problems led to the first postwar experiments with the blending of nylon and other fibers, particularly cotton and wool.

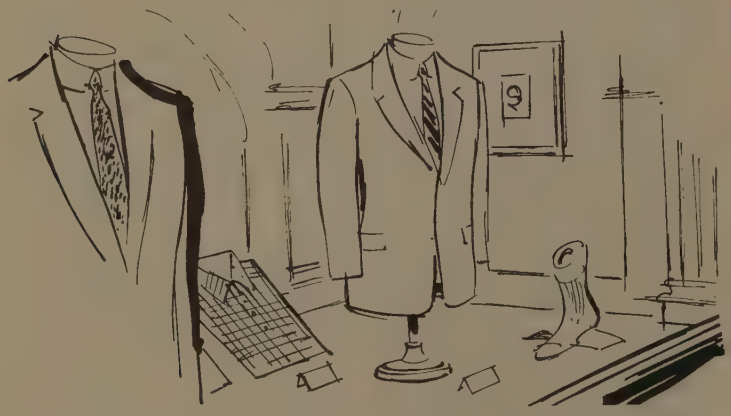
Nylon was the first of the long procession of the so-called "miracle" fibers. The record of its success has both a marketing and a semantic importance. For the idea that new synthetic fibers and other materials could accomplish "miracles" became firmly entrenched in the mind of the American consumer. That belief has helped overcome the initial resistance to the use of such fibers as Dacron, Orlon, Acrilan and others in blends with wool, cotton, rayon and with each other. The pseudo-moral objections of wool textile weavers to the deflowering of virgin wool could not stand up against the promises of longer wear, crease resistance, washability and other virtues so effectively promoted by the synthetic fiber industry.

The techniques used by Du Pont for the introduction of nylon in 1938 have set the pattern for the avalanche of man-made fibers that has changed the character of textiles in the United States and, for that matter, is making great inroads over most of the world. Each of the new fibers—Dacron, Orlon, Fiberglas, Saran, Acrilan and the rest—has been launched with heavy publicity and intensive advertising by its producer. Most of them have been presented to the consumer, at their launching, in special applications with restricted production.

For example, Dacron was introduced in men's suits, with very limited distribution. Similarly, when it was blended with worsted, only small quantities of the finished clothing were made available. The American avidity for the new, spurred by the intensive promotion, created an insatiable demand. In men's light and midweight suits, for example, the total noncellulosic (neither rayon nor acetate) content in 1949 amounted to 100,000 pounds out of a total of 9.3 million pounds of fiber consumed. By 1958 the consumption had climbed to almost five million pounds out of 11 million pounds consumed.

Lighter and less formal

It is interesting to note that the introduction of Dacron and the other new fibers played a role in increasing the sales of lighter weight men's clothing, but, at the same time, sales of regular weight suits declined. The consumption of all fibers for the heavier weight category of men's suits went down 22 per cent during this decade. Of course, our better heating in homes and automobiles, air conditioning in the summer, and the general trend toward lighter and less formal clothing all had their influence. Confirmation is to be found in the steep increases in sales of separate jackets and slacks during this period.



This technological revolution in textiles has been a relatively quiet one. The dislocations which have accompanied most other changes of such magnitude have not made their appearance, due, principally, to the prosperity this nation has enjoyed. Yet, actually, there is a highly complex picture here, both in terms of the marketing of the products and the effect of these man-made fibers on the fiber economy of the country. From the economic standpoint, we should examine, too, the unique character of the competitive battle involved here and its effects on consumer, retailer and manufacturer.

The success of the synthetic fibers in men's apparel has been won in the face of a long-term decline in men's clothing sales, a decline which has gone counter to the rising population and increased purchasing power. To some extent the man-made fibers may have helped to arrest this trend, particularly in relation to the sales of lighter weight clothing.

However, we can see the problems compounded for both cotton and wool producers. One solution, for cotton, has been the development of crease-resistant finishes resulting in the wash-and-wear fabrics. These have aided cotton consumption in men's shirts and shorts, women's and children's dresses, and, to some extent, in men's suits, although these are more often than not blended with man-made fibers.

In the case of wool, a new development is a process for keeping permanent the crease in men's trousers and slacks. Another is the trend toward lighter weights, in which imported English and Italian fabrics have led the way.

The so-called "battle of the fibers" has been a long history of competition. What is new in our day is the role played by immensely wealthy and powerful chemical companies who are able to expend vast sums on the research, development, testing, promotion and advertising of their fibers.

Massive effort

One characteristic of the marketing of the new synthetic fibers has been the massive effort exerted to establish an identity for each one. The success of this strategy has tended to weaken, water down and render ineffective many of the seem-

ingly well-established brands and trademarks of the prewar years. An excellent case history is furnished by the introduction of nylon into women's hoisery.

Before World War II the big brand names in women's full-fashioned hosiery included Gotham, Kayser, Phoenix, Holeproof and Van Raalte. Except for the last named, every one of the others has suffered a severe change, and the original company has been bought or merged with one or another of the new breed of firms with diversified lines. What happened was that nylon became more important, in the consumer's mind, than any brand name. It was more difficult to convince a woman of any genuine product differentiation when practically all the hosiery offered her was labeled 15 denier nylon, knit on 51 or 60 gauge machines.

The hosiery producers were in somewhat the same position as the transatlantic airlines are today, when they all offer jet transportation to the same cities at the same price, and have to resort to the silly business of talking about the meals and attentive stewardesses on flights which take less time than ever before. After all, if you are going to be in Paris in six hours, it doesn't really matter whether you have champagne and filet mignon during the flight.

Deplorable fact?

In the case of women's stockings, the industry was faced also with the deplorable fact that nylon hosiery wore longer than silk. Also, it had always treated seamless stockings as basement merchandise because neither silk nor rayon could be knitted on seamless machines to fit properly. Here was an industry which had reached its heights of production by constantly increasing the perishability of the product.

As silk yarns became available in finer deniers, silk stockings, which in the Twenties had been 11-thread, became progressively 7-thread, 5-thread, 4-thread, 3-thread and even 2-thread. The hosiery full-fashioned knitting machine manufacturers produced first 39 gauge machines, then 42, 45, 48 and finally 51 gauge equipment, that is designed to run the finer silk yarns and to make ever more sheer stockings.

After the war, knowing that nylon was to replace silk, the new machines were made faster so that for style obsolescence the machine manufacturers substituted technological obsolescence. In a few short years practically the whole industry was re-equipped. But then a new threat appeared, a threat to their enormous investment in full-fashioned equipment. Nylon stretches. Seamless stockings can be made of nylon to fit and glamorize a woman's legs. The appeal of the bare leg look began to drive women into seamless stockings, and today they have replaced full-fashioned hosiery to such an extent that 55 per cent of the nylon hosiery being produced is of seamless construction.

Revealing statistics

The statistics are most revealing. In 1950 the hosiery industry produced 51 million dozen pairs of full-fashioned nylon stockings. In 1959 the total was 33 million dozen pairs. In 1950 the nylon seamless production came to 4.3 million dozen pairs, while by 1959 it had risen to 29 million dozen. But the totals of all nylon stockings show an increase, over these 10 years, of only 11 per cent. Employees in the women's full-fashioned sector of the industry stand at 33,525 against 69,816 in 1950, and this loss of jobs is not compensated by the employment in the seamless sector of 18,611. As against 1,335 hosiery plants operating in 1950, there are 1,050 today.

In men's hosiery the effort to combat the drop in consumption, which the longer wearing synthetic yarns promised, took the form of variety in styling and types. But, actually, per capita consumption has decreased from 13.9 pairs in 1950 to 10.5 pairs in 1959, and total production of all types of men's socks has gone down from 63 million dozen pairs in 1950 to 52 million dozen pairs in 1959.

Here, quite clearly, is a failure to increase production in proportion to the rise in population. The men's hosiery producers do not have the recourse of the women's stocking producers to increasing the perishability of their product by developing sheerer socks. Men like their socks opaque and moderately heavy, while boys go in for bulky knits. Fortunately for the boys' socks manufacturers, boys outgrow socks when they do not wear them out. So the figures show a healthy increase.

Cash crop

Before the advent of the postwar man-made fibers, the American hosiery industry had an important role in international trade. It was the principal consumer of the finer grades of Japanese silk and therefore one of the chief producers of dollars for Imperial Japan. As a cash crop, silk was of major value to Japan, for it bought cotton to weave into fabrics for export, it bought wool to weave into textiles to clothe its own people, and it was the world's largest producer of rayon. Today Japan has to depend on industrial exports and on a greater variety of consumer goods than ever to support its econo-

my. Silk plays a considerably lesser role. (Japan, you may recall, paid the Soviet Union in rayon for the Manchurian section of the Trans-Siberian Railroad.)

In contrast to the natural fibers, the man-made products come from a highly concentrated group of interconnected international chemical companies. The family tree of rayon, even in the Twenties, showed close relationships between American, British, French and Italian firms. Today German and Japanese producers are part of this exclusive international club, with cross-licensing and patent royalty arrangements between Imperial Chemicals in Great Britain, Du Pont in the United States, I. G. Farben in West Germany, Montecatini in Italy and Mitsui in Japan.

In American marketing, the textile manufacturers have found themselves forced to capitalize on the advertising and promotion of the basic synthetic fiber producers. The manufacturers of apparel and their retailers have followed suit. Relatively few textile concerns have been able to establish separate identities for their fabrics. One of these has been the trademark of "Raeford 2/80's for a lightweight fabric of high-twist worsted and Dacron. But Burlington Mills, J. P. Stevens & Co., Lowenstein and the other integrated giants in the textile industry have few trademarks which command consumer recognition and acceptance. But Dacron, Orlon, Acrilan, Fiberglas—these have identity and significance for the consumer.

Consumer benefits most

What has happened, however, is something similar, though not so drastic, as the story of nylon in women's hosiery. It has become difficult to establish product differentiation when men's shirts of Dacron and cotton are offered at from $3.98 to $10, or men's suits of various blends are advertised at from $39 to $100.

The dollar volume enjoyed by both the apparel manufacturers and the apparel retailers has declined relative to the increase in population and to the expenditures for other commodities. On the whole, the consumer has benefited most from the scientific and technological advances which have made these new fibers available and from the revolution which they have brought about in textiles and their end products. True, some of the applications have proved unsuitable. But, in the main, the consumer has been able to buy longer wearing clothing, which is easier to keep clean and neat, for prices which have not risen proportionately to the increase in many other goods.

The textile manufacturers have become tied to the huge chemical combines more and more firmly. This is probably one of the underlying reasons for the profusion of mergers and the emergence of the huge textile combinations which today are predominant in what was, before the war, an atomized industry.

The competition has now shifted to include the chemical giants who supply the markets for synthetic fibers and plastics, while the textile manufacturers try to play one man-made fiber against another. But here they are faced with such hearty acceptance of the Dacron-Orlon-Acrilan-etc. brands that their maneuverability is limited.

Depend on style obsolescence

The apparel manufacturers depend more and more on style obsolescence to speed consumption of their products. Men's suit jackets get longer—then shorter. Lapels grow wider—then narrower. Pockets wander. In women's apparel the speed of change is considerably more rapid than ever before. Within less than a month after the Italian and Paris showings, the new styles are on sale in stores around the country.

The retailer is the tail to this elaborate kite. He has no other course but to join in the chorus of advertising of Dacron-and-wool, Orlon-and-Acrilan, and all the other permutations. His profit margins are shrinking. The rate of retail failures rises. To what extent the decline in product differentiation plays a part in the turnover of retail establishments there is no way of telling, and undoubtedly there are many other factors contributing.

But if nylon in hosiery is any criterion or guide, then we know that the more a producer or retailer of any apparel item is limited to the new man-made fibers, the less independent and the more precarious is his existence.

The consumer patronizes the clothing shops quite unaware of the battle being fought over every inch of suiting and dress fabric. But the repercussions of this private war are felt by the sheep growers in Australia, the silk farmers in Japan, and the surplus cotton stocks in the United States. Nor is apparel the only field in which this competition rages. A switch from cotton to rayon, or from rayon to nylon, in automobile tires may have drastic results.

Thus, in 1949, there were 149 million pounds of cotton used in tires, but in 1958 the consumption of cotton for this purpose went down to 32 million pounds. At the same time, in the same period, nylon yarn consumption for tires rose from 2.2 million pounds in 1949 to 94.1 million pounds in 1958.

Nor should we neglect still another aspect of this revolution. The man-made fibers require far fewer man-hours of labor than do cotton, wool, silk, linen, jute, sisal, hemp or ramie. They are more uniform, and therefore assure higher productivity, less "down time" at the looms. The producers of synthetic fibers do not suffer from the crises of under- and overproduction of the natural fibers. Wool, cotton and the other natural fibers are subject to a variety of market pressures. The synthetic fibers are not—as a glance at any chart of cotton or wool prices versus rayon or nylon prices over the years will immediately reveal.

As the use of man-made fibers rises in terms of total fiber consumption, the severity of the effects of overproduction of the natural fibers must increase, because to meet this threat of the synthetics only drastic price reductions or higher subsidies can have any effect. On the other hand, should any of the natural fibers decline in production, the capacity of the chemical industries is there, ready and waiting, to step in and take up the balance.

Thus, this technological revolution presents unsolved problems in terms not only of the marketing of end products, but also in terms of international trade, employment and freedom of competition. ■

OUR LABOR LAWS: *Too Much, Too Late*

by JOHN T. DUNLOP

Fourth in a series of articles dealing with the lag between the way we think our economy behaves and the way it actually does behave.

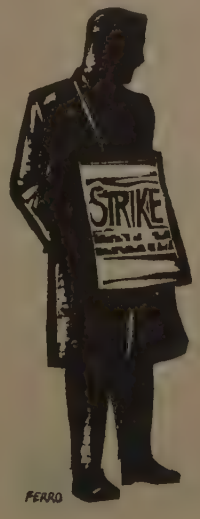
■ THERE ARE FEW AREAS of American public life in which accepted theory has lagged so far behind reality as in the sphere of collective bargaining. During the past century the labor policies of government—especially insofar as they deal with union-management relations—have too frequently failed to conform to the realities of the industrial work place. The persistence of this lag in public policy gives rise to some searching questions about the processes of enacting labor law.

Is partisan legislation the most suitable means for determining the framework of collective bargaining? Is there any way to avoid the continuing bitter recriminations over increasingly detailed and highly technical statutes—the Wagner Act (1935), the Taft-Hartley Act (1947), and the Landrum-Griffin Act (1959)? How can we break the endless cycle of litigation and legislation and secure for the whole national community the benefits of greater cooperation between management and organized labor?

The public itself, though largely unaware of the intricacies of labor law and of the real issues in labor-management disputes, appears to be increasingly dissatisfied with the operations of collective bargaining. The general feeling is that collective bargaining is producing too much strife, too much inflation and too stringent working rules.

Under the influence of the steel strike, A. H. Raskin of *The New York Times* declared in November, 1959, that: "The steel companies and the United Steelworkers of America have become standard-bearers in what amounts to an outbreak of class warfare—low-voltage, nonviolent, but nonetheless destructive in its implications for industrial democracy and an economy calculated to serve the consuming public. . . ." Alluding to problems on the railroads and the docks, he concluded "that something is seriously awry in the system of collective bargaining. . . ."

Our current process of determining labor policy can only be understood in the light of our experience of the past century. As historian Henry Steele Commager has pointed out in his book, *The American Mind,* the rapid industrialization of the United States after 1880 took place in an agrarian and commercial community characterized by individualism, optimism, sanctity of contract and traditional property rights, and a limited role for government in social affairs. The conduct and conflicts of large-scale business enterprises and labor organizations were not readily assimilated into established doctrines and policies attuned to an agrarian and commercial society.



By the last quarter of the 19th century the law recognized the workers' privilege of organizing labor unions without civil or criminal liability. But the practical necessity of workers to resort to economic weapons—strikes, boycotts, picketing and other concerted activities—in order to spread organization and to secure concessions from employers involved many head-on conflicts with the law.

On the whole, the courts were more interested in protecting the rights of business enterprise than they were in assuring unions the right to pursue their objectives. The extent to which this judicial philosophy reigned can be seen in a decision handed down by Circuit Judge Parker in 1927. Judge Parker held that the right of union members to use lawful propaganda to attract members was subordinate to the rights of an enterprise to hold workers to the terms of "yellow dog" contracts they had signed. (Such a contract was a statement by an applicant for employment promising not to become a member of a labor union if employed.) This decision reflected how wide the gap had become between the realities of industrial life and the technicalities of the law.

Even when Congress sought to change the traditional law, the courts often declared the legislative intervention unconstitutional and thus preserved the fictions of a bygone period. For example, in 1898 Congress enacted the Erdam Act which outlawed the "yellow dog" contract in the railroad industry. But 10 years later the Supreme Court declared the statute an illegal invasion of personal liberty and the right of property. The use of the Sherman Antitrust Act in labor-management disputes and the interpretations by the courts of the Clayton Act illustrate this same pattern.

Though the impact of labor law during this period was biased in favor of industrial management, our concern here has been to note the *unrealistic assumptions* upon which the law was based.

Prior to the Wagner Act, Ameri-

can industrial management, by and large, simply refused to recognize labor organizations. There were notable exceptions of course—where craftsmen were exceptionally strong, where the social pressures of isolated communities or groups of workers were particularly intense, or where financial conditions or idealistic convictions caused a few managers to accept collective bargaining. But the expanding mass-production industries were overwhelmingly anti-union.

On three occasions a major effort was made to persuade American managers voluntarily to recognize trade unions and to accept collective bargaining. On each occasion the attempt failed miserably. The first attempt at the turn of the century was under the leadership of the National Civic Federation, Mark Hanna and other business leaders. The second attempt was made by President Wilson. Through the Industrial Conference he tried to perpetuate the principles of labor-management relations temporarily accepted during World War I. The third attempt was made through section *7-A* of the National Industrial Recovery Act (NRA) passed in 1933. This Act proclaimed the rights of collective bargaining and sought to pledge employers not to interfere with workers' efforts to organize labor unions.

Custom and agreement

The refusal of American managers to recognize labor unions voluntarily contrasts sharply with the Scandinavian and British record of labor-management relations. For a period in Denmark, Sweden and Britain there was considerable industrial conflict and political struggle over the status of labor organizations. But the right to organize, the right to engage in bargaining, and the procedures and arrangements for bargaining, evolved gradually by custom or by explicit agreement between organized managements and unions. They were not imposed by law.

In the early 1930s it appeared that the United States was headed in the general direction pioneered by Britain and Scandinavia a generation before. The Norris-LaGuardia Act of 1932 sought to remove the most serious obstacles to labor organization and union bargaining power which had been developed by the courts. This legislation outlawed "yellow dog" contracts and curtailed the power of the courts to issue injunctions against unions. Since most labor leaders did not seek active intervention of the government on their behalf—they desired only that the government and courts be "neutral" —they were in agreement with the aims of the Norris-LaGuardia Act.

The Railway Labor Act of 1926 was cast in the same mold; significantly this legislation was largely shaped by the joint action of the railroad companies and the labor organizations.

Product of the times

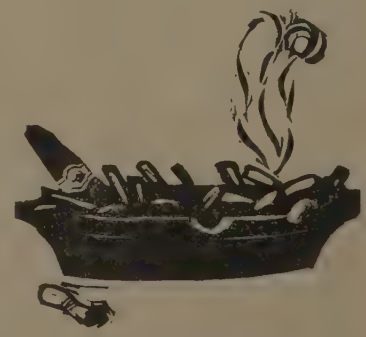
But the Wagner Act was to constitute a major change in the development of public policy, although it was probably not intended to do so. On the face of it, the statute did not seem complex. It was designed simply to require employers to recognize and bargain with labor unions where the employees desired a union. In other words, it sought to compel enterprises to do what persuasion had failed to do.

The labor policies outlined in the Wagner Act were determined by the conditions of the times. The current depression conditions were reflected in its preamble: "Inequalities in bargaining power tend to aggravate recurrent depressions by depressing wage rates and the purchasing power of wage earners." The codes of the NRA had proved unsatisfactory and had just been declared unconstitutional; it was necessary to enact quickly some legislation which would have a more direct effect on labor standards. It was also important politically to do something for labor before the elections of 1936. Thus, the law had a short-run focus.

Since there was widespread doubt as to the constitutionality of the Wagner Act, administrative arrangements and the procedures of the National Labor Relations Board (created by the Act) had to be geared to the all-important question of court review. It was drafted by bright young government lawyers, and did not reflect any consensus or meeting of minds of labor and management. Indeed, although labor leaders were consulted, they had relatively little to do with formulating the basic ideas; the fears of AFL leaders over the powers of the NLRB and the enlarged role of government were quieted by sweet words and assurances.

According to the provisions of the Act, the National Labor Relations Board was to determine election units for purposes of union representation—whether "employer unit, craft unit, plant unit or subdivision thereof." The union securing the majority of votes in the "unit" was to be the exclusive bargaining representative of that unit. Management would be compelled to recognize and to negotiate with this union and no other. This relatively simple and innocent notion was to have unsuspected consequences.

• Labor leaders were no longer to have the final decision on which union an employee would join; the decision was now to depend upon the votes of employees within a unit determined (or gerrymandered) by the NLRB. Thus, AFL labor leaders could no longer insist that electricians belonged in an electricians' union, bakers in a bakers' union, etc. Butchers, bakers and candlestick makers might all end up in an electricians' union, if the election district happened to have a lot of electricians in it. Destroyed in one



stroke was the principle of exclusive jurisdiction—the right of one union to represent all workers in a particular trade or job territory specified in its charter from the AFL. This had been the most basic constitutional principle of the AFL from its founding days in the 1880s. Moreover, a multiplant company was more likely to end up with a number of different unions with one or more separate units determined by the NLRB

in each plant. It is indeed strange that such basic changes were not more widely discussed.

• The administration of the law necessarily involved government intervention in the internal life of the labor organization. Among the earliest problems to emerge was the refusal of some labor organizations to admit certain racial or skill groups into membership. It was up to the government to make sure that all workers within a unit had the right to join the certified union.

• The statutory requirement that management bargain in good faith with the certified labor organization also encouraged the spread of bureaucratic regulation. Though this simple statute was envisaged as a necessary part of union recognition, it brought into existence a vast body of rules prescribing the content, scope and procedures of collective bargaining. These regulations were not proposed or even scrutinized by top leaders of management and labor. Indeed, they were put into effect by lawyers seeking to win their cases rather than by top leaders seeking wise general policy.

• If a union did not accept the certification of another union and sought by strike or economic sanctions to change the affiliation of the workers, or if disputes arose over the boundary lines between certifications, the government again could not stay aloof. A strike designed to require an enterprise to violate the law could not be allowed. Whole sections of the Taft-Hartley Act were devised largely in order to deal with problems inherent in the government certification of bargaining representatives. In addition, sections of the Landrum-Griffin Act of 1959 were aimed at resolving basic inconsistencies between the Wagner Act and the Norris-LaGuardia Act.

• When economic conflict is on a scale that "threatens the nation's health or safety," there are strong pressures for the government to intervene in the collective bargaining process. Title II of the Taft-Hartley Act was designed to deal with this implication of the Wagner Act.

Present position

It is not necessary here to sketch the inevitable administrative, legislative and judicial steps by which

the nation moved from the Wagner Act to Taft-Hartley and then to Landrum-Griffin, nor to outline the steps that are yet to come. Our present position can be briefly summarized as follows:

First of all, the legislative framework of collective bargaining is now regulated by a highly partisan political process. Thus, the Democratic platform for 1960 promised the "repeal of the antilabor excesses which have been written into our labor laws," and it accused the Republican Administration of establishing a "national antilabor policy." The Republicans pledged "diligent administration of the existing statutes with recommendations for improvements or to remove inequities." We are headed for another ride on the merry-go-round.

Sparring postures

A more serious aspect of the situation is that organized management and labor have virtually no responsibility in shaping the legislative framework and administration of the statutes. They are confined to making formal and extreme statements. The procedures of the last 25 years have encouraged labor and management to maintain their sparring postures.

The national policy in fact seems to make for litigation rather than settlement. Litigation fosters unreality in the extreme. It takes a great deal of time, and cases are often decided years after issues are raised. Lawyers are frequently involved in game playing rather than in the process of settling disputes by encouraging both parties to make practical accommodations. The litigation involving monitors in the teamsters union represents only an extreme instance of these tendencies.

Moreover, the legislative framework is more and more technical and detailed. The point has been reached where the general provisions no longer make sense in many industries, and we have started in the direction of special provisions for particular industries. Fewer and fewer members of the Congress are equipped to understand the technical issues, particularly since the language is necessarily written hastily in conference committees by staff lawyers far from the bargaining process. Formal compromises in words assure unending litigation.

No group of men is smart enough to write words through which others cannot find holes when the stakes are high. Thus, certain provisions of Taft-Hartley that defined the legal limits to secondary boycotts had to be clarified by the addition of new paragraphs in Title VI of the Landrum-Griffin Act. These, again, are leading to new clauses in collective bargaining agreements which may lead to further litigation and legislation. Such game playing is not appropriate to collective bargaining.

Finally, the long-term legislative framework of collective bargaining has been excessively influenced by short-term influences. The depression shaped the Wagner Act; the postwar inflation and wave of strikes decisively influenced the Taft-Hartley Act; and the investigations of the McClellan Committee decisively shaped the 1959 law. Immediate problems are hardly the most appropriate framework for laws under which management and labor must live for a generation. The long view has been lacking.

Contribution to harmony

Despite the failure of the government to provide realistic labor legislation, many significant contributions to industrial harmony have been made through the process of collective bargaining. In the middle 1930s collective bargaining was thought of largely in terms of reaching agreements on wages, hours, working conditions and arbitration procedures. In the late 1930s and during the war, the major problems concerned wildcat stoppages, disci-

pline layoffs, promotions, internal wage relationships, the operation of the grievance procedure and a range of issues relating to the day-to-day operations of the enterprise in their impact on the work force.

Any careful study of the operation in American industry of collective bargaining, in this sense, must conclude that the institution today is working well. Enormous progress has been made in the past 20 years in these areas. By and large, wildcat strikes are no longer a serious problem. Discipline standards are high and constitute on the whole a reasonable balance between the necessities of managerial efficiency and the realities of human and organizational frailties. Orderly procedures exist for handling grievances; grievance arbitration is highly developed and respected.

There are, however, a number of new problems arising in American industry which the traditional arrangements of collective bargaining are not well designed to handle. One of the most significant of these—undoubtedly the most important problem that will confront labor and management in the next decade—is the wide range of adaptations required by the accelerated rate of technological change. These problems are of a different order from the old ones. They cannot be met only by determining management and union prerogatives or by writing and administrating agreements.

The rate of innovation in an enterprise must be planned and constant communication must be maintained with all affected employees so they will understand coming developments. Wage structures and incentive systems will likely require changes. Seniority groupings and promotion ladders may need adjusting. There may be layoffs and some early retirements; in addition, arrangements will have to be made for retraining employees and for shifting employees to other plants and localities.

Experimental conferences

Lately, organized labor and management—sometimes with the assistance of government or private neutrals as mediators and initiators—have been experimenting with "joint conferences" as a means of tackling these new problems. The joint conferences are an outgrowth of collective bargaining and they use many of the same methods, but the problems considered and the processes are sufficiently different to warrant some new term.

The programs worked out between the packinghouse unions and Armour and Company; the work rules commission in the railroads, the West Coast longshore industry, and the Kaiser Steel Co., the National Coal Policy Conference and the Construction Industry Joint Conference—all illustrate this new form of joint conference activity.

Joint conferences often involve a considerable change in the traditional roles of labor leaders, management and the government. The government, in particular, does not direct or regulate but serves as catalyst, mediator and a resource with imagination; it attempts to provide leadership by persuasion. The role of Secretary of Labor Mitchell in the matter of railroad rules is exemplary.

MISGUIDED POLICY

The government is seeking to impose on parties to collective bargaining . . . a set of standards of conduct which in many respects is highly unrealistic. To remove the parties from any significant responsibility for the formation and administration of policy is destructive of the character of our society, leads to impractical and unreal policies and to mass evasion and disrespect.—JOHN T. DUNLOP

The emergence of joint conferences was the result of the recognition on the part of both unions and management that it would be to their mutual advantage to get together. It was *not* a form invented by legislation. Indeed, as the scope of bargaining is defined in legal terms, and as the time and posture of litigation frustrate cooperative action, the natural evolution of the joint conference may be hampered.

It is unrealistic to expect any turning back on the legislative road, but it should be possible to keep from traveling any further down it. The legislative and administrative framework of collective bargaining should be changed only after extensive consultation and mediation with organized management and labor through neutral or government experts. It is also essential that a major role be evolved for both parties in the administration of the present statutes in order to facilitate the settlement of disputes and to reduce formal litigation.

If both labor and management bear a larger measure of responsibility for policy, they will not be so apt to criticize legislation as biased and impractical. It is not so likely that their energies and imagination will be directed to circumventing the law. Patient mediation and the development of consensus among top labor and management (with public and government experts) is essential to effective labor-management legislation.

Trial and error

Outside the work place and the collective bargaining sphere, new developments are taking place in the activities of labor organizations, and in their relations to managements, which have significant consequences for the whole community. The growing role of the unions in community fund activities, in the medical care field and in housing illustrate their new interests and wider horizons. These developments are slow, and in the tradition of our labor movement they involve a great deal of trial and error rather than any ideological commitment. But these activities, often handled in consort with managements, eventually are certain to bring new attitudes to the collective bargaining and joint conference activities.

It is a tragedy that an industrial country does not better understand the industrial work place. The rules of the industrial work place—seniority, manning and compensation—are strange to many people in the professions, in offices and in nonindustrial pursuits, although their own work often involves analogous rules. The role of the union leader—in his relations to management, in providing orderly change and procedures at the work place, and in compromising and reconciling the wide differences and conflicts which exist within any group of workers—is one of the most important and difficult in our society. His role must be better understood and appreciated if the present gap between labor policy and labor realities is to be closed. ■

Decisions, decisions, decisions

DON'T ABDICATE TO THE EXPERTS!

by EDWARD C. BANFIELD

■ IS THIS modern world so complicated that only experts are equipped to direct our affairs? Increasingly, we hear that we must depend on the decisions of scientists, technicians and other specialists. In business, government, and even in our daily shopping, more and more decisions require fairly complicated scientific or technical knowledge. Since the businessman, the government official and the consumer do not have the knowledge necessary to make such decisions, they must, it is said, take the advice of experts on faith.

Under these circumstances—so the argument runs—our economic and political institutions are bound to change fundamentally. It is nonsense to speak of consumer sovereignty when the consumer knows next to nothing about the products among which he must choose. And representative democracy is impossible when neither the citizen nor his representative is qualified to pass upon questions of the highest importance.

If this really is the situation, we may as well say a hurried good-by to the old-fashioned world in which one man's opinion was about as good as another's. It is obviously out of the question to equip the whole population, or even any sizable part of it, with the scientific knowledge that present-day decision making seems to require.

There are several reasons, however, for thinking that the situation may not be as bad as all this.

First, the technical or scientific component of decisions, especially of "important" ones, is usually relatively small. Where a purely technical basis for choice exists, the need for choice disappears: a problem is "solved," but no decision is "made." Decisions involve choosing between values, and usually also the making of subjective judgments about probabilities. Such judgments can only be made by a mysterious process of intuition or insight. Some people seem to be better than others at making them, and those who have the knack or art to an unusual extent "have good judgment."

Only when a decision is viewed from a distance does it appear to be entirely technical. The closer the inspection, the larger its subjective elements loom. Whether fall-out is sufficiently damaging to justify a cessation of nuclear explosions may at first appear to be mainly a matter for physicists and biologists. But it turns out—as the debate between Linus Pauling and Edward Teller

showed—that the technical elements of the question are a very small part of the whole.

The essentials on which the decision must turn—for instance, if we suspend tests, can the Russians be trusted to do so too?; or how much damage to human germ plasm would the defense of Western institutions justify?—are all questions of value and of probability about which science can have nothing to say.

Second, it is not necessary, nor indeed even desirable, for a decision maker to have the technical qualifications to deal directly with the elements of a decision that *are* technical. All that is necessary is that he be able to select competent advisers. In business and government, and in daily life as well, we deal with many difficulties, not by mastering them ourselves, but by using judgment in selecting others to master them for us.

Third, judging the competence of a scientist is made easier by social organizations, especially universities and professional associations, which to a large extent do it for us on the basis of criteria agreed to by the scientific community.

Take, for example, the layman's problem in choosing a physician. In principle, to do this rationally one would have to know more medicine than most physicians do. But, in fact, one need know little or no medicine. This is so because, for one thing, the choice does not usually turn entirely, or perhaps even mainly, on the physician's technical competence. We are likely to care as much or more about whether he is reliable, has good sense, is pleasant in manner, is fair in money matters, and so on, as about his purely technical skill. In these very important nontechnical aspects of the decision, we can, and almost necessarily must, rely largely upon our tastes and feelings.

Insofar as we are concerned about the physician's technical qualifications, we must rely upon the opinions of others. But these others—universities, hospitals, medical associations—employ fairly objective criteria. Thus, although medical science has become enormously more complicated in the last half-century, our choice of a physician has not become more difficult and uncertain. On the contrary, it is easier and safer.

These considerations do not eliminate the problem, however. Even though the technical components of a decision may be relatively few, they may be crucial. And the decision

maker often cannot judge prudently if he is entirely ignorant of technical considerations.

It would be easy, however, to exaggerate both the amount of background information usually required for prudent judgment and the difficulty of acquiring it. People who have a facility can do so remarkably quickly. Politicians, above all—but also businessmen, lawyers and journalists—have the facility: they can step almost daily into new and complex fields and at once absorb enough information—enough and no more—to make practical judgments.

Indeed, they are able to do this because they do not have a profound knowledge of a subject. Specialists often suffer from a "trained incapacity" to make practical judgments in their own subject matter or in any other. They cannot disregard any elements of the question. But intuitive disregard of all but what is essential is the *sine qua non* of the successful decision maker's rare gift.

Success of Churchill

Churchill's remarkable success in presiding over the emergency development of British science and technology at the beginning of World War II is well known. This did not depend upon his having wide technical knowledge. As he himself wrote:

"Although I have never tried to be learned in technical matters, this mental field (the development of radar) was well lit for me. I knew the various pieces and moves on the board, and could understand anything I was told about the game."

That was enough. Had he known more, he might have tried to move the pieces himself. That would have been a misdirection of energy, at best.

It may be objected that although statesmen may be briefed by scientists and so get the background information they need, the ordinary citizen, upon whose judgment the welfare of a democracy must finally depend, is not so fortunate. If he cannot understand the issues because of their technical character, how is democracy to survive? Either the citizen will, out of ignorance, make the wrong decisions and disaster will ensue, or he will give up his right to decide, and that too will be the end of democracy.

Representative democracy does not require, however, that every citizen pass upon every question. All it calls for is that he give or withhold approval, at infrequent intervals, to what has been done by his representatives. For these infrequent decisions about the record and tendency of an administration *as a whole,* he does not require any technical or scientific knowledge.

Unpopular in U.S.

This theory of representation is not popular in the United States. It is more nearly that of the British, who have always held that it is the business of the government to govern. The American view seems to be that governing is everyone's business. Our system was designed to put bits of power within easy reach of everyone, thus giving everyone opportunity and incentive to play at the game of governing.

Such a system can work only under certain conditions. One is that the government should not be expected to do very much. Another is that it should not be expected to do that little with consistency or with comprehensiveness of purpose. But even under these conditions, it is essential that many of the eligible players somehow be induced not to play, or at least not to play very seriously.

Several mechanisms have been used to achieve this: the machine, which bought off voters with petty personal favors; ethnic politics, which bought them off with appeals to pride and prejudice; pressure group politics, which bought them off by logrolling; and apathy, which caused many to stay out of the game entirely. American democracy has worked pretty well, so far, because a large share of the eligible players have been too busy selling peanuts in the grandstand to get into the game.

In recent years the situation has changed. The number and importance of the decisions that must be made by government has increased, and—since for the first time in our history foreign affairs are vital to our survival—consistency and comprehensiveness of purpose are indispensable. Meanwhile, the mechanisms which formerly reduced the number of players in the game—that is, the number acting on the basis of political principles—have broken down.

The machines are all but gone. The appeal of ethnic politics is declining. The strengthened position of the executive makes logrolling more difficult. At the same time, there has been a dangerous trend toward the reduction of apathy: more people feel *obliged* to vote, and to vote *independently,* whether they have any competence to do so or not.

Even so the ordinary citizen will be more of a backbencher in the future than at present. To some extent, this will be because the matters to be decided are really technical and difficult to understand. But to a very much larger extent, it will be because the citizen incorrectly *supposes* that they are too difficult for him to understand. It will be this myth, more than reality, that will take him out of politics, if he is taken out of it by such means.

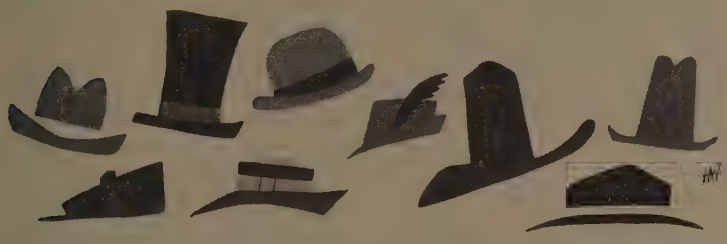
The citizen's distrust of his own knowledge and his respect for that of the scientist may cause him to abdicate his right to decide, and to accept the pronouncements of scientists. This is not to say that scientists will rule. Politicians will rule, as always. But they will do so through, and by means of, the magic attached to the name of science.

What we have to fear is not so much the supremacy of science as the undervaluation of the art of judgment, and the consequent decline of the art. Judgment is largely a matter of art. Like swimming or bicycle riding, it cannot be learned from books. It has to be acquired by doing. Facts and logic enter into it very little. Mostly it is intuitive, involving "the feel of the situation."

"Flash of insight"

In most matters there is no satisfactory substitute for the mysterious skills that constitute sound judgment. There is no technical way of deciding which among competing ends is morally preferable. There is no technical way of estimating probabilities in unique cases—and every important decision presents a unique case; if it did not, it would not be an "important decision." There is no substitute for the "flash of insight" by which one sees the solution to a problem. All important decisions involve such judgments.

The tendency of our culture, however, is to view with suspicion any decision-making process which depends upon art or intuition. We seem to think that if we have enough facts, and if we view them in a detached spirit, right answers are sure to appear. Therefore, we create vast bureaucracies to assemble facts and to make technical analyses of them, and we put into positions of responsibility not persons gifted with good



judgment, but bureaucrats capable of presiding over big enterprises.

This bias toward fact and away from judgment runs very deep in our culture. We like to decentralize power as much as possible; transforming a decision from a mysterious, private act in the mind and heart of a gifted individual into an observable process by which many persons assemble facts. This appeals to us as a way of democratizing the process of decision. We distrust politicians and all those with partisan motives. If a decision is to be made "on a factual basis" we are reassured, for this suggests that there will be nothing "political" about it.

Manifest dangers

The dangers in this are manifest. One is loss of efficiency when wrong decisions are made on the basis of technical knowledge instead of right ones on the basis of art. Another is that research will be used dishonestly to conceal from the public, and even from the decision makers themselves, the real, subjective basis of decisions. Still another is that in the name of "objectivity" decision makers will abdicate their responsibility altogether, leaving matters to be decided on grounds that, although technical, are nevertheless radically inappropriate.

These dangers may be illustrated with an example from a Midwestern city. An interstate freeway was to be built between the downtown part of the city and points west. The question for decision was where to locate its route through the city. This, it may appear, was a matter for highway engineers to decide. In fact the engineers did gather an enormous amount of information, and used highly sophisticated techniques to measure the mileage vehicles would travel on each possible route.

The engineers also made painstaking efforts to predict the traffic pattern of the future. They brought in an urban geographer, who inventoried land use and land development trends. When, at last, the engineers made their recommendations, they said that a particular route would "optimize traffic service." By this they meant that for a given investment the number of vehicles that would pass a given point in a given period of time would be maximized.

It all seemed very technical, as indeed it was. The taxpayers of the city doubtless were confident that everything was being decided nonpolitically, as indeed everything was. Most city officials were satisfied to follow the engineers' recommendation. One who was *not* satisfied to do so was the former city planner, a man who had retired after many years of service. He did not pretend to understand the technical methods of the engineers, but he had no hesitation in saying that they had come to an outrageous conclusion.

Their route, he said, was "a crime against the city's character." The freeway would cut the Negro community in two. Displaced Negroes would move into white neighborhoods, and this would lead to violence. Besides, the aesthetic and economic unity of the city would be destroyed. And, finally, he asked, why should "optimization of traffic service" be the only relevant consideration? Did not the people of the city want other things in life as well?

The incumbent planner, a young man, was not unsympathetic to these arguments. But he had been taught to distrust his ability, and his right, to make value judgments. Who was he, he asked, to substitute his judgment for the enormous array of fact and analysis the engineers had assembled?

As a practical matter, moreover, the engineers' route—unpopular as it was—could be defended in the city council on the grounds that it had been made in a purely technical, and therefore impartial, way. It made no difference that it was impartial in about the same way that a tornado would be impartial. The young planner, therefore, said nothing, and the engineers' route was adopted. Everyone—*almost* everyone, that is—was satisfied that the decision had been made in a highly rational manner.

Summary and conclusion

What has been said may be summarized in three main conclusions:

First, we should recognize that important decisions cannot be made technically; judgments about values and probabilities are unavoidable. Therefore, unless we leave matters to chance, we cannot escape the necessity of using judgment—if not our own judgment, than someone else's; and if not good judgment, then bad.

Second, in general, we should devote ourselves less to forming opinions on important issues than to estimating the capacity of others (persons and institutions) to make judgments for us. In estimating the capacity of others, we will need to depend upon still others, of course, and if appropriate institutions do not exist for our guidance, we should try to develop them. (The smoke-filled room of professional politicians is such an institution, and it is certainly a better device for selecting candidates than the direct primary.)

Third, and above all, in every sphere of life we should give those who represent us sufficient authority to make, without undue interference, the decisions that are necessary. In the absence of such authority, fact-gathering enterprises are at best a waste and at worst a dangerous deception and encumbrance. ■

Why Research Spending Soars

by LEONARD S. SILK

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■ THE GREAT THING the United States will have going for it in the years ahead will be the swift scientific and technological progress of our time—and a rising tide of investment resulting from American industry's new principle and practice of programed innovation, creating a multiple flow of planned new products out of research in a new and powerful extension of capitalism's growth process.

How important this force is you can see by looking at the past impact of improving technology on output. Robert Solow of M.I.T. has estimated that, of the total increase in United States output per man-hour from 1909 to 1949, only 12.5 per cent was due to increase in capital equipment, while 87.5 per cent was due to technological progress. In a second study, Solomon Fabricant of the National Bureau of Economic Research has found that, during the period 1871 to 1951, technological advance accounted for 90 per cent of the rise in output per man-hour, as against 10 per cent for capital formation. And Benton F. Massell, in still a third independent study, done at the Cowles Foundation for Research in Economics, likewise has found that, during the period 1919 to 1955, technological change accounted for approximately 90 per cent of the rise in output per man-hour.

In other words, it was not primarily more machinery in back of every worker, but an unknown combination of better machinery and technology, better organization, better management and greater skills on the part of workers, that sent United States output soaring in the past half-century.

The implications of these findings are of outstanding importance for policy makers and economists. They mean that the overwhelming emphasis of any program for growth must come to focus on technological progress—and the factors that promote it or obstruct it.

Once said, this may seem to be an obvious conclusion, one that "we have always known." . . . But the idea was never really built into the corpus of economic analysis or policy. Like many "new ideas" in economics, this new stress on the role of technology and research represents simply a shift of emphasis, perhaps a somewhat different way of looking at old knowledge—but a way that can be of crucial importance in reconstructing the economics of growth. . . .

Investment process

To stress the role of technological advance is, of course, not to deny that its impact upon the economy is largely communicated through the investment process. By and large, technological progress does not become "real" until it is embodied in new investment: knowing how to plough a field faster does nothing until tractors replace horses. To be sure, changes in organization, techniques and skills requiring little or no capital investment can also be important; and such new knowledge, similarly, means nothing until it is put to work. As one old farmer once told the expert from the university experiment station, "Hell, I ain't farming half as well as I know how already."

Generally speaking, however, an economy which is rapidly increasing its capital stock is also likely to be accelerating the process of technical advance. And that proposition has its converse: the rate of capital investment will be greatest when innovational change comes fastest—because the rate of profit will then also be high.

Technological advance should therefore help to keep an economy not only growing but also more stable. The reason is twofold: (1) technological advance will be an underlying force for profit, for capital investment and for expansion—and an economy, like a bicycle, is more stable when it is rolling forward than when it is standing still; and (2) in periods of recession, the opportunities created by technological advance for profit-conserving investment, aimed at modernizing and replacing obsolescent equipment, will place a fairly high floor under capital investment—whose downswings have in the past been the main cause of recessions and depressions.

But, in order to get the steady flow of investment in plant and equipment that results from technological progress, there must be regular and sustained efforts in research and development.

To speed up technological progress, the curve of research and development expenditures in the United States keeps rising. In 1928 American industry spent less than $100 million on R&D. By 1953-54, overall research spending had jumped to more than $5 billion a year. In 1959 the total was $12 billion. . . .

Since *research* has become an "okay" word, applied to operations which produce no new knowledge, one certainly must try to distinguish the real rise from the phony. But one needs only one's naked eyes, regardless of what the imperfect data show, to reveal how the research revolution has transfigured the American scene. . . . All around the country, sleepy old college towns have turned into boom towns where you are lucky to find a parking space or a table at the best restaurants—let alone a good house near the campus—because of the competition of the scientific and engineering elite that has engulfed those towns. In places like Cambridge, Princeton and Palo Alto, the elite has become a mob.

And the research spending curve, which has done all this, will continue to rise. By 1969, according to

a new McGraw-Hill study, the R&D total will be more than $22 billion. Some observers put the future level of research spending still higher. . . .

At some point, clearly, R&D spending must taper off—or else, as Guy Suits, Vice President and Research Director of General Electric, says, ". . . it would eventually constitute the entire economy—an anomaly that even the most partisan supporters of R&D would view with dismay." United States business is already trying to determine the proper balance between research and development and other industrial functions, including capital investment, manufacturing and marketing. The optimum combination of these interdependent activities, as Suits suggests, isn't a constant, but a variable that reflects changes in each industry and in the over-all economy brought about both by growth and by growing complexity.

Although any forecast of research expenditures will be subject to very wide ranges of error, one thing appears plain: the limit of the rise in the R&D curve is still a long way off.

The most obvious (and doubtless the most fundamental) cause of the rise of research spending lies in the nature of scientific research itself. Research feeds upon itself: discovery breeds discovery; innovation breeds innovation; and with each new discovery or innovation, the total body of scientific and technological knowledge increases.

Of course, this has always been so. But in our time the process has been accelerating.

Inventive genius

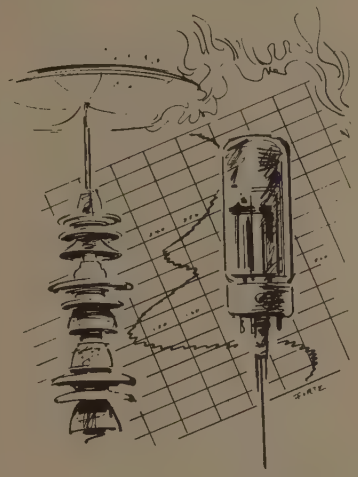
The world has always had scientific and inventive geniuses. But frequently they were, as the common phrase has it, "ahead of their time." William Ogburn observed:

"Leonardo da Vinci couldn't invent an airplane, although his brain was probably as good as those of the two bicycle repairmen who did invent it. But the materials for the airplane did not exist in da Vinci's day. The light gas engine was not invented until several centuries later. In the same way all scientific discoveries are built upon preceding scientific discoveries and are not something that comes fully created from the researcher's mind, as a result of only wishes and will power."

The thing that seems to be happening in our time is that all the once widely separated avenues of scientific and technological knowledge are converging, like the roads that lead into a city—a city where ideas are then swiftly exchanged, where civilization then swiftly grows.

"Building blocks"

Unlike the situation that confronted Leonardo, vast numbers of elements needed for further scientific and technological progress are now at hand, waiting for scientists and engineers to put them together. Miller B. Spangler has categorized these



elements—which he calls "building blocks"—in this way:

1. Process materials—metals (including "new" metals like uranium, titanium, beryllium), alloys, plastics, laminates, fuels, chemicals, fibers, clay, etc. New or improved process materials frequently lead to technological changes in many industries where cost saving is involved.

2. Process equipment—turret lathes, boring mills, planers, milling machines, gear cutters, grinders, welding machines, forges, deep-drawing presses, centrifuges, agitators, ball mills, boilers, condensers, compressors, jet-molding machines, glass-blowing machines, extrusion dies, rolling mills, billeting machines, cyclotrons, etc. New models of these machines are capable of greater speeds and precision than those of only a decade ago. Automatic or semiautomatic operation of these machines has led to large cost reductions. New process equipment may result from new process materials—for instance, metallurgical advances may permit the construction of machinery of greater durability, or permit its operation under greater ranges of temperature and pressure.

3. Tools of measurement and observation—chronometers, compasses, sextants, telescopes, microscopes, pressure gages, thermometers, calorimeters, micrometer calipers, protractors, planimeters, levels, plumbs, transits, spring scales, analytical balances, volumeters, ammeters, wattmeters. . . . These have importance in many industrial applications, such as exploration or quality control or automatic operations, but their most significant use is in scientific and industrial research itself. New and better instruments lead to new experiments—and whole series of scientific discoveries and industrial innovations.

4. Calculating devices—adding machines, electronic computers, mathematical tables such as trigonometrical functions, random numbers, Poisson distributions. . . . The greatest importance of these devices probably is that they astronomically expand the productivity of scientific investigators.

5. Recording devices—photographic equipment, sound-recording equipment, microfilm, memory tapes, geophones, time recorders, temperature recorders, pressure recorders, volume-of-production recorders, etc. These improve production control and facilitate automation. Improved handling of statistical and engineering information accelerates research and development.

6. Instruments of communication—telegraph, telephone, radio, television, intercom systems, teletype, radar, photoelectric cells, dictaphones, signaling devices, sirens, limit switches, alarms, moving pictures, etc. These permit the swift interchange of ideas and information from human to human—and from machine to machine. . . .

7. Inventories of standardized items—wrenches and repair tools, nuts and bolts, chemicals, batteries, condensers, transistors, valves, motors, pumps, fork lifts, etc. These minimize delay in fabrication and

repair, and reduce the costs of industrial processes and of research and development work.

8. Reference literature—encyclopedias, dictionaries, bibliographies, indexes, technical books, handbooks, periodicals, trade journals, etc. These stores of information are of enormous importance to the scientist and engineer. . . . In fact, the enormous difficulties of keeping up with the work in one's own field (which requires the assistance of growing numbers of exceptionally well-qualified librarians, and editors and teachers), together with the essentiality of having access to the enormous apparatus required for scientific and technological research in so many areas today, is the basic force behind the shift from the individual investigator to the research team, from the bicycle shop to the large industrial, or government or university research center. This shift need not mean debasement of the individual intelligences and imaginations required—but it does imply greater specialization, and more emphasis upon communication and cooperation among the specialists.

Reactionary move?

Although some outsiders (including many economists, and sociologists and social critics) seem to feel that the move toward the team approach in research is somehow a reactionary move—an instance, perhaps, of George Orwell's "groupthink"—the more gifted investigators appear to be drawn to large institutions where they can find skills and talents complementary to their own, and where the resources will be adequate to permit the researcher to tackle critical problems with some hope of success. Studies which emphasize the great contributions made in the past by individual inventors as proof of the individual's superiority over the team would appear to have limited application to the present or the future. This is of course not to say that, in all fields, the day of the individual researcher or inventor is gone; there doubtless are still many opportunities for the lone thinker to make tremendous contributions in mathematics, theoretical physics, symbolic logic, economics, etc., as well as in the area of practical gadgetry. In any case, the argument about the merits of the individual researcher versus the research team is somewhat meaningless—for individuals in the sciences are simply not "alone"; they depend upon the enormous heritage of Western science, language and civilization—and they are fools if they do not keep up and benefit from what colleagues in their own field or related disciplines are doing. . . .

In any event, the enormous expansion of scientific and technical endeavor, utilizing the building blocks of new materials, new tools of measurement and observation, new calculating devices, recording devices, instruments of communication, standardized parts, and catalogued stores of ancient and recent information and ideas, makes it virtually certain that we are still in the *early* phase of our research revolution. . . .

Industry is becoming more and more aware of the necessity of that shift to basic research. Before World War II, very little fundamental research originated in industrial laboratories; scientists in the universities were in fact constantly astonished to learn that any "pure" research was done in any industrial laboratory. And most university men thought that a concern with the practical usefulness of fundamental research was rather vulgar or even sinful; and that notion persists in some quarters, though it is changing, as the urgent importance of science for industry, government and economic development becomes more widely understood by scientists.

And since World War II, business has begun to regard basic research as a practical and economic investment for industrial growth. The McGraw-Hill survey of research expenditures found that, in 1959, United States industry was spending $270 million on basic research—compared with $5 million in 1945. That industrial investment of $270 million in basic research in 1959 constituted 29 per cent of all dollar expenditures on *basic* research in this country. This is, of course, not to say that the total outlay of $960 million on basic research, out of a total R&D expenditure of $12 billion, is adequate. It probably is not. Indeed, the McGraw-Hill data show that industry's percentage allocation of funds to basic research has diminished from four per cent of total R&D outlays in the earlier postwar years to three per cent now, though in absolute terms the rise in basic research spending by industry has been great.

It would be a mistake to underestimate the significance of industry's new-found interest in basic research, or of the results that have already begun to flow from it. Literature studies by General Electric researchers show that the industrially contributed fraction of basic science publication amounts to 19 per cent in the field of physics (including all sub-divisions), in chemistry to 22 per cent, and in metallurgy and ceramics (combined) to 37 per cent.

Government laboratories have also been making significant contributions to the output of basic research. The same General Electric study shows these contributions by government laboratories: in physics, 22 per cent; in chemistry, 15 per cent; and in metallurgy and ceramics, 20 per cent. University contributions were 56 per cent in physics, 59 per cent in chemistry, and 35 per cent in metallurgy and ceramics.

"Inner logic"

Of course, one cannot be sure whether this is or is not a fair division of the fundamental research burden among industry, government and the universities. One might even argue that industry should be *less directly* involved in basic research (while spending more on basic research via grants to universities and other research institutions), should not be seducing fundamental researchers from the campuses, where they can choose their tasks more freely, without any commercial direction. It is at least possible that science and technology expand optimally when they grow by their own "inner logic," without any concern about proximate or ultimate goals. That old argument still goes round and round inconclusively; it is a general "philosophical" argument that doubtless can only be settled by detailed examination of the particulars in many fields. . . .

The United States government is, by far, the major source of funds for research and development work. In 1959 the government put up $7.2 billion—or 60 per cent of total R&D

outlays. (Private industry provided $4.6 billion, or 37 per cent of the total; colleges and other institutions provided $300 million, or only three per cent of the total.) Most of the funds the government put up went to finance R&D work by private industry and research institutions; of the $7.2-billion total provided by government, $4.6 billion went to industry, $1 billion to colleges and other institutions—and only $1.6 billion was spent in government laboratories. And of the $7 billion the government provided, $6 billion went for research in defense and defense-oriented industries.

Most research prognosticators today believe that, although the government's annual investment will probably not increase much in the decade ahead, it will probably not decrease much either. The reason lies in the role federal spending has come to assume in basic research.

Costs big money

Basic research, especially in some of the newer fields of physical science—solid-state physics, cryogenics (cold-temperature research), plasma research, electronics, hypersonics, and so forth—costs big money. Except for the very largest companies, few individual corporate budgets are big enough to support this highly risky research investment; the probability of success in cases of individual projects . . . is pretty low. But the results of successful gambles may be so tremendously valuable not just to industry but to the nation and its security that the risks of investment in research should be socially borne. . . .

It would, however, be a serious mistake to exaggerate the degree to which the continuing rise in research spending depends on government support. Of the $9.1 billion in R&D work performed by industry in 1959, industry itself did, after all, provide half the financing. And that $4.5 billion spent by industry on R&D in 1959 was more than twice as much as industry put into research in 1953, more than four times as much as it invested in research in 1946. The chief reason for this trend is simple but dramatic: much of United States industry has caught on, with a bang, to the proposition that research produces innovations and innovations produce profits—either by creating or expanding markets, or by cutting costs.

Since World War II, the most profitable industries and companies, and the ones with the best growth records, have been those that had an outstanding performance in research and innovation. The importance of the research-profit-growth nexus has been sharply pointed up by a study of 50 large industrial companies by A.T.&T. This study clearly showed that, as between different industries or between companies within the same industry, the research-minded companies tended to be the most profitable. One cannot, of course, lay out a simple cause-effect (or chronological) sequence leading from research to profit to growth. Some would make profit the initiating factor. Some would put far more emphasis on good management. Some would give more weight to shifts of demand upon particular companies or industries from outside political, demographic or technological forces. The causes of company profit and growth are obviously highly complex. Nevertheless, some of A.T.&T.'s case histories reveal that research can in fact frequently be isolated as the critical cause of a company's profits and growth.

For instance, the A.T.&T. study contrasts the performance of International Business Machines Corp. with two other, unnamed companies—both of which had larger sales than IBM just before World War II. All three companies prospered through the war and the period of high postwar demand immediately after the war. But, in 1951, IBM saw tougher competition ahead and decided to boost its already substantial research expenditures, though this meant lower profits in the short run. IBM's heavy investment in research led to new and improved products, more rapid growth and higher profits in the long run.

Meanwhile, the other two companies tried to grow by buying other companies, rather than by finding and making better products. As the 1950s wore on, they fell farther and farther behind. Finally, one started a crash program, pouring back into research a larger part of each sales dollar than any other company in the industry, hoping to get back in the running; the other company, the A.T.&T. study said, ". . . is now so poor it cannot devote much money to research." A.T.&T. concluded mournfully: "It is going to be difficult to restore this company to financial health."

Such cases—and they can be found in other industries—are what lie behind the change in management thinking about the importance of R&D. More and more companies have come to regard expenditures for research not as a luxury but as a necessity to meet both domestic and foreign competition; many executives have come to refer to research as the lifeblood of successful business operation. Wall Street has learned to keep a close watch on a company's research activities; that a company has a strong and productive research program has come to be one sure way of judging management's competence and the company's growth prospects.

Indeed, so spectacular have been the results of research that "research" has been used, by some sharp operators or faddists, as a gimmick. The Jem Flatiron Co. has become Jemtronics, and National Cowbell has become Bovisonics. Alas, hypocrisy is the homage that vice offers to virtue, as La Rochefoucauld said.

But real research will go on expanding—thanks to the logic of science, the quest for profits and the awful responsibilities facing our government. ■

RESEARCH AND DEVELOPMENT ESTIMATES: MAJOR SOURCES OF FUNDS
(In billions of $)

Year	Total	Industry	Govt.	Nonprofit*
1945	1.8	0.9	0.8	.1
1946	2.1	1.0	1.0	.1
1947	2.7	1.3	1.3	.1
1948	3.1	1.4	1.6	.1
1949	3.1	1.4	1.6	.1
1950	3.4	1.5	1.8	.1
1951	4.0	1.8	2.0	.2
1952	4.5	2.0	2.3	.2
1953	4.9	2.2	2.5	.2
1954	5.5	2.4	2.8	.3
1955	6.3	2.5	3.5	.3
1956	8.4	2.9	5.2	.3
1957	10.0	3.5	6.2	.3
1958	11.0	4.0	6.7	.3
1959	12.0	4.5	7.2	.3
1969 (est.)	22.2	9.0	12.4	.8

*Colleges and institutions.

The Attack on World Poverty. Andrew Shonfield. 269 pp. New York: Random House. $5.00.

• This is a refreshingly readable account of the very complex problem of assistance to underdeveloped countries. Mr. Shonfield, Economics Editor of the London *Observer*, makes a detailed survey of present development programs and concludes that the West must give more aid to distressed areas of the world and apply it more effectively. Economic aid must not be a matter of "a jolly shareout" in which all underdeveloped countries partake equally regardless of their ability to use the aid effectively. To give aid requires very careful planning; *it must be concentrated where there is most promise of a maximum return.*

The author feels that the U.N. is the place from which economic aid should be distributed and administered, but he points out how bureaucracy and a lack of centralized authority has limited the effectiveness of U.N. assistance programs. He advocates a drastic reorganization of U.N. agencies and policies.

While very critical, the study is also very exciting and hopeful. It is enlivened with many wry comments made by persons working actively in the field and with sparkling descriptions of the personalities and attitudes of such prominent men as Eugene Black, head of the World Bank; Raul Prebisch, head of the Economic Commission for Latin America; and Per Jacobsson, Director of the International Monetary Fund.

On reading this very practical and controversial report, one is struck by the realization that the success or failure of the most exciting "missionary" challenge the Western world has known rests largely in the hands of bankers, economists and technicians. If Carlyle could have read this book he would not have conceived of economics as the "dismal science."

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The Purpose of American Politics. Hans J. Morgenthau. 359 pp. New York: Alfred A. Knopf. $5.00.

• Freedom in equality, Morgenthau asserts, is the American purpose—and few free men would dispute him. In this important book he traces the historical response to this mission and gives his definition, in specific terms, of America's purpose during this time of crisis. The author is Professor of Political Science and Director of the Center for the Study of American Foreign Policy at the University of Chicago, and speaks with the benefit of deep knowledge and penetrating understanding.

His theme is that communism and nuclear weapons present a challenge that can only be met on the international level. We must create an "international order that would translate common interests into a common purpose, fuse the power of individual nations and assign to them responsibilities commensurate with their interests and power." Changes in the procedures of our government and in the organization of our economic life will be needed as we concentrate our forces on these objectives. If we fail to meet this challenge we will betray the purpose of America and find ourselves defeated by communism.

• • •

Tropical Africa. George H. T. Kimble. Two volumes. 1109 pp. New York: Twentieth Century Fund. $15.00.

• At a time when Africa is assuming increasing importance, this comprehensive survey is of great value. It deals with the vast area between the Sahara and South Africa where 167 million people are in transition between a primitive past and an uncertain future. Kimble, formerly Director of the American Geographical Society, and now Chairman of the Department of Geography at Indiana University, has produced a work that is at once scholarly, illuminating and readable. Handsomely illustrated and well provided with maps, it can be heartily recommended.

After starting from the physical and human geography, the book moves on to all important aspects of economic geography. Then it considers society, social changes, government, nationalism, the new African elite and the problems of development. Finally, having shown the huge dimensions of tropical Africa's needs, it stresses that African conditions and aspirations are unlike ours and that African development, both economic and political, will be molded accordingly.

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The Genius of America. Saul K. Padover. 369 pp. New York: McGraw-Hill Book Co. $6.50.

• When Mr. Padover says in the first sentence of this study, "This is a book about a group of men who molded America's political mind and institutions," he is mistaken. Certainly such men as Emerson, Thoreau and Whitman made great contributions to American thought and American art. But the American "political mind" is something else again, and Mr. Padover fails to convince the reader that Emerson, Thoreau, *et al.* had much to do with its formation. Another weakness of the book is Mr. Padover's contrived designation of his characters—the American as Archetype (Washington), as Anarchist (Thoreau), as Democrat (Jefferson), etc.

In addition, the author's judgments are sometimes rather extraordinary. He implies, for example, that because Chief Justice Marshall read novels (he was particularly fond of Jane Austen) he was not "widely educated or broadly read." Now, perhaps Marshall was *not* a scholar, but the fact that he enjoyed Jane Austen hardly proves this point.

Though the book as a whole does not hang together, from each chapter there emerges a clearly defined picture of a man and his ideas. These individual portraits are, on the whole, enlightening and well written. The parts of this work are considerably better than the whole.

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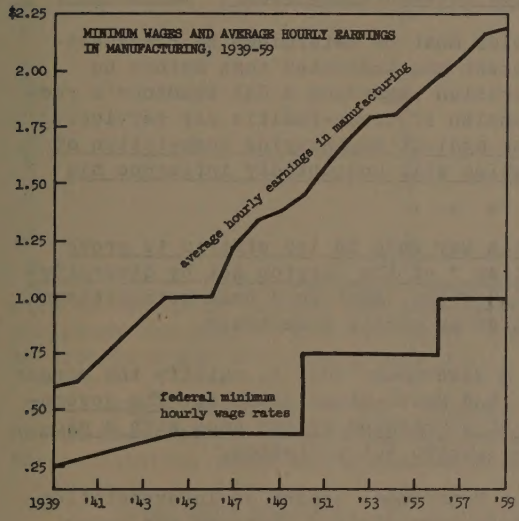
Congressional Control of Federal Spending. Robert Ash Wallace. Detroit: Wayne University Press. $5.95.

• How effective is Congressional control over the nation's purse strings? In this interesting book, Dr. Wallace, who served as Staff Director of the U.S. Senate Committee on Banking and Currency from 1955 to 1959, and more recently as economic consultant to President Kennedy, clearly shows that there is room for improvement. His specific suggestions for improvement—in particular his suggestion for making more widespread use of the General Accounting Office as clearinghouse for budgetary information—are eminently sensible.

DOMESTIC ECONOMY—For the first time since 1938, when the Fair Labor Standards Act was passed, it looks as if Congress will extend minimum wage coverage. It is also likely that the minimum wage, which is currently $1 an hour, will be raised to $1.15, and possibly to $1.25.

At present the law covers about 55% of those working for wages and salaries. Only 12%—agricultural workers, those working in the retail trades and some service employees—are specifically excluded from the Act's coverage. The remaining 33% are not employed in interstate commerce (as this term is currently understood) and are therefore not included under the federal law.



Actually there has been a decline in the proportion of those covered by minimum wage legislation since 1938. The postwar years have seen a decided shift in employment from manufacturing to services.

This means that employment has been shifting from a sector of the economy, where 95% of the employed labor force is covered by minimum wage legislation, to the service industries, where only 17% of the employed labor force is so covered. In the retail trades less than 3% of wage and salary earners are currently included under federal minimum wage legislation. Unless the coverage of the current law is extended, the shift in employment to the service industries will continue to provide fewer workers with minimum wage protection.

One proposed amendment to the Fair Labor Standards Act introduced by President-elect Kennedy in the last session of Congress would increase the minimum wage to $1.25 and would extend coverage to an additional 7,992,000 workers. Another proposed amendment would increase the minimum wage, first to $1.15, and a year later to $1.25. This would also extend the minimum wage to an additional 7,200,000 workers, but would not give them a $1.25 wage for another 3 years.

Because of uneven coverage, minimum wage legislation has probably tended to increase wage differences for the economy as a whole. Average wages in those industries not covered by the law have lagged considerably behind the wages of workers employed in industries covered by minimum wage legislation. While the average wage in manufacturing was $2.20 in 1959, it was $1.76 in the retail trades, $1.17 in laundries and $1.18 in hotels. In many of these fields the average wage and proposed minimum wage are virtually the same. Thus an increase in minimum wages in these fields would apply to most of the employed.

Unfortunately, politics tend to win over economics in this field. From an economic point of view, there is a great deal to be said for substantially increasing the coverage of the $1.00 minimum wage although a good case can be made for not increasing it very much beyond that figure at this time. It is more important to have more Americans earning at least $1.00 an hour than it is to give a few workers (most of whom already earn substantially more than the minimum) the security of knowing that their wage cannot go lower than $1.25.

New air route policy?

ECONOMIC NEWS NOTES—A private research concern, which prepared a study of U.S. policy on international air routes at President Eisenhower's direction, has recommended that the government abandon its policy of fostering competition among U.S. airlines on overseas routes.

The study by United Research, Inc. of Cambridge, Mass., recommended that additional competition among U.S. carriers should not be authorized in some areas and that competition should be curtailed in others.

The report further stated that in assigning routes the government should be guided by "the opportunities for economical and profitable operation of each route" rather than the principle of competition alone. Up till now government policy has been to certify at least 2 airlines to compete on each major international route.

Although future air route policies must be determined by President-elect Kennedy, President Eisenhower has indicated that before he leaves office he will make a decision regarding a CAB examiner's recommendation for a sweeping expansion of trans-Pacific air service. United Research's recommendation against emphasizing competition at the expense of profitable operation will undoubtedly influence his final decision.

* * *

Clayton Act interpretation

The Justice Department has lost a key case in its efforts to prove that a company may violate Section 7 of the Clayton Act by diversifying its operations through acquisitions. Section 7 bans acquisitions if they tend to lessen competition or create a monopoly.

The decision was the result of a government suit to nullify the merger between the Continental Can Co. and Hazel-Atlas Glass Co. The government contended that the merger of a producer of tin cans with a producer of glass containers was a Clayton Act violation.

In bringing the suit, the Jusice Department sought an interpretation of Section 7 that would discourage acquisitions "between and among close substitute producers." The Department asserted that the court's failure to uphold its contention would mean "wholesale amalgamation of competitive industries through acquisitions."

The U.S. District Court decided that the government had failed in all respects to prove that the merger violated the Clayton Act. The Justice Department has not yet decided whether to appeal.

* * *

Brotherhoods to merge

In a step toward presenting a stronger front to the nation's railroads who are becoming increasingly concerned over alleged "featherbedding," 2 of the 5 railroad Brotherhoods have decided to merge.

Directors of the 30,000-member Order of Railway Conductors and Brakemen, and the 180,000-member Brotherhood of Railroad Trainmen have agreed to the merger subject to the approval of the membership. The larger union will, in effect, be absorbing the Conductors union but has assured its officers that they will have places in the new administrative structure.

There is a good chance that at least 2 of the remaining Brotherhoods will eventually consider joining the merger. The powerful Brotherhood of Locomotive Engineers, however, has consistently opposed merger proposals from the other unions.